

Books

Eisinger D. (2010) *Smog Check: Science, Federalism, and the Politics of Clean Air*. Resources for the Future Press. Washington, D.C. (ISBN 9781933115726).

Journal Articles

- Chang S.Y., Huang J., Chaveste M., Lurmann F., Eisinger D., Mukherjee A., Erdakos G., Alexander M., and Knipping E. (2023) Electric vehicle fleet penetration helps address inequalities in air quality and improves environmental justice. *Communications Earth & Environment*, 4, doi: 10.1038/s43247-023-00799-1, April 22. Available at <https://www.nature.com/articles/s43247-023-00799-1>.
- Eisinger D., Craig K., Landsberg K., Mukherjee A., DeWinter J., McCarthy M., and Brown S. (2021) Near-road air quality insights from a U.S. DOT five-year transportation pooled fund study. *TR News*, (332), 20-27, March-April. Available at <http://www.trb.org/Publications/Blurbs/182193.aspx>.
- Mukherjee A., McCarthy M.C., Brown S.G., Huang S., Landsberg K., and Eisinger D.S. (2020) Influence of roadway emissions on near-road PM_{2.5}: monitoring data analysis and implications. *Transportation Research Part D: Transport and Environment*, 86(102442), (STI-7166). Available at <https://www.sciencedirect.com/science/article/pii/S1361920920306295>.
- Craig K.J., Baringer L.M., Chang S.-Y., McCarthy M.C., Bai S., Seagram A.F., Ravi V., Landsberg K., and Eisinger D.S. (2020) Modeled and measured near-road PM_{2.5} concentrations: Indianapolis and Providence cases. *Atmos. Environ.*, 240, 117775, (STI-6696), November. Available at <https://www.sciencedirect.com/science/article/abs/pii/S1352231020305070>.
- Brown S.G., Penfold B.M., Mukherjee A., Landsberg K., and Eisinger D. (2019) Conditions leading to elevated PM_{2.5} at near-road monitoring sites: case studies in Denver and Indianapolis. *International Journal of Environmental Research and Public Health*, 16(9), 1634, doi: 10.3390/ijerph16091634 (STI-7047), May 10.
- Seagram A.F., Brown S.G., Huang S., Landsberg K., and Eisinger D.S. (2019) National assessment of near-road air quality in 2016: multi-year pollutant trends and estimation of near-road PM_{2.5} increment. *Transportation Research Record*, doi: 10.1177/0361198119825538 (STI-6963), January 30. Available at <https://journals.sagepub.com/doi/10.1177/0361198119825538>.
- DeWinter J.L., Brown S.G., Seagram A.F., Landsberg K., and Eisinger D.S. (2018) A national-scale review of air pollutant concentrations measured in the U.S. near-road monitoring network during 2014 and 2015. *Atmos. Environ.*, 183, 94-105, doi: 10.1016/j.atmosenv.2018.04.003 (STI-6777), June.
- Reid S., Bai S., Du Y., Craig K., Erdakos G., Baringer L., Eisinger D., McCarthy M., and Landsberg K. (2016) Emissions modeling with MOVES and EMFAC to assess the potential for a transportation project to create particulate matter hot spots. *Transportation Research Record: Journal of the Transportation Research Board*, 2570, 12-20, doi: 10.3141/2570-02 (STI-6330).
- Bai S., Eisinger D., Niemeier D., Benson P., Reid S., and Chenausky B. (2013) Modeling in-use construction equipment emissions for highway projects: framework, methodology, and case analysis *Transportation Research Record: Journal of the Transportation Research Board*. 2340, 1-9 (doi: 10.3141/2340-01, STI-5430).
- Timoshek A., Eisinger D. S., Bai S., and Niemeier D. (2010) Mobile source air toxic emissions: sensitivity to traffic volume, fleet composition, and average speed. *Transportation Research Record: Journal of the Transportation Research Board*. 2158, 77-85 (doi: 10.3141/2158-10, STI-3964).
- Karner A., Eisinger D.S., and Niemeier D. (2010) Near roadway air quality: synthesizing the findings from real-world data. *Environ. Sci. Technol.* 44 (14), 5334-5344 (doi: 10.1021/es100008x, STI-3923).

- Chen H., Bai S., Eisinger D.S., Niemeier D., and Claggett M. (2009) Predicting near-road PM_{2.5} concentrations: comparative assessment of CALINE4, CAL3QHC, and AERMOD. *Transportation Research Record, Journal of the Transportation Research Board*. 2123, 26-37 (doi: 10.3141/2123-04, STI-3792).
- Karner A., Eisinger D.S., Bai S., and Niemeier D. (2009) Mitigating diesel truck impacts in environmental justice communities: transportation planning and air quality in Barrio Logan, San Diego. *Transportation Research Record, Journal of the Transportation Research Board* 2125, 1-8 (doi: 10.3141/2125-01).
- Eisinger D. and Wathern P. (2008) Policy evolution and clean air: The case of U.S. motor vehicle inspection and maintenance. *Transportation Research Part D: Transport and Environment* 13D (6), 359-368 (ISSN 1361-9209).
- Kear T., Eisinger D., Niemeier D., and Brady M. (2008) US vehicle emissions: Creating a common currency to avoid model comparison problems. *Transportation Research Part D-Transport and Environment* 13, 168-176.
- Eisinger D.S., Niemeier D.A., Stoeckenius T., Kear T.P., Brady M.J., Pollack A.K., and Long J. (2006) Collecting driving data to support mobile source emissions estimation. *Journal of Transportation Engineering* 132 (11), 845-854 (STI-901270-2536).
- McCarthy M.C., Eisinger D.S., Hafner H.R., Chinkin L.R., Roberts P.T., Black K.N., Clark N.N., McMurry P.H., and Winer A.M. (2006) Particulate matter: a strategic vision for transportation-related research. *Environ. Sci. Technol.* 40 (18), 5593-5599 (STI-904750-2843). Available on the Internet at <http://pubs.acs.org/doi/abs/10.1021/es062767i>.
- Eisinger D.S. (2005) Evaluating inspection and maintenance programs: a policy-making framework. *J. Air & Waste Manage. Assoc.* 55, 147-162 (STI-2400).
- Eisinger D.S. and Niemeier D.A. (2004) Transportation control measures: federal requirements and State Implementation Plan development considerations. *Transportation Research Record: Journal of the Transportation Research Board* (No. 1880), 59-70 (STI-902390-2506).
- Eisinger D.S., Dougherty K., Chang D., Kear T., and Morgan P.F. (2002) A reevaluation of carbon monoxide: past trends, future concentrations, and implications for conformity "hot-spot" policies. *J. Air & Waste Manag. Assoc.* 52, 1012-1025 (STI-998360-2061).
- Eisinger D.S., Niemeier D., and Brady M.J. (2002) Conformity: The new force behind SIP deadlines. *Air & Waste Manag. Assoc.'s EM*, (STI-901270-2115), January, 16-25.
- Eisinger D.S., Simmons R.A., Lammering M., and Sotiros R. (1991) Screening radon risks: a methodology for policy makers. *J. Reg. Toxic. Pharm.* 14, 245-260.
- Eisinger D.S., Peacock M.C., and Falk S.B. (1989) Solving the United States national park overflight dispute. *Environ. Mgmt.* 13, 149-157.

Other Publications

- Porter C., Eisinger D., Tanvir S., and Kall D. (2019) Response to a rapidly transforming field: the Transportation and Air Quality Committee's strategic plan. *TR News*, (321), 36-40, May-June. Available at <https://www.trbairquality.org/wp-content/uploads/2019/06/2019-TRB-AQ-Strategic-Plan-TRNews321.pdf>.
- Bai S., Eisinger D., Russell A., Lurmann F., and Roberts P. (2014) Lu bian kong qi wu ran [Near-road air pollution]. *Transportation Construction & Management* (8), 64-67 (STI-5943), April.

Lurmann F., Brown S., McCarthy M., Eisinger D., and Roberts P. (2013) Processes influencing ambient concentrations near roadways. *Air & Waste Manag. Assoc.'s EM*, 18-23, July.

Rowan D., Eisinger D., and Niemeier D. (2008) Regulating snowmobile emissions in Yellowstone. Guest commentary published in *The Denver Post*, March 14.

Reid S.B. and Eisinger D.S. (2007) Goods movement and the environment. *Air & Waste Manag. Assoc.'s EM*, 6-7.

Meeting Presentations and Conference Proceedings

Chang S.Y., Huang J., Alexander M., Eisinger D., Pavlovic N., and Knipping E. (2021) Air quality benefit from accelerated EV penetration in Southern California: a case study in the Interstate 710 corridor. Presented at the *CMAS Conference, virtual, November 4*, by Sonoma Technology, Petaluma, CA and Electric Power Research Institute, Palo Alto, CA. 600600-7613.

Ryder O.S., McCarthy M.C., Eisinger D.S., and Brown S.G. (2022) Recent trends in near road mobile source air toxics concentrations in the United States. Presentation given at the *10th CRC Mobile Source Air Toxics (MSAT) Workshop, February 8-10*, by Sonoma Technology, Petaluma, CA. STI-9200600-7666.

Eisinger D. and Hatzopoulou M. (2022) Decarbonizing transport by 2050: pressing needs and priority research. Presented at Transportation Research Board Executive Committee Meeting, January 12, by Sonoma Technology, Petaluma, CA.

Craig K., Baringer L., Chang S.Y., Eisinger D., and Landsberg K. (2020) The Near-Road Air Quality Transportation Pooled Fund – lessons learned from a 5-year research program: measurements compared to modeled concentrations. Presented at the *U.S. Transportation Research Board, 99th Annual Meeting, Workshop 1772 "Near-Road Air Quality: Current Conditions and Analysis Insights," Washington, D.C., January 16*, by Sonoma Technology, Inc., and the Washington State Department of Transportation. STI-7227.

Brown S., Eisinger D., Landsberg K., Ryder O., Mukherjee A., DeWinter J., and McCarthy M. (2020) National assessment of measured near-road (NR) air quality work: sponsored by the Near-Road Air Quality Transportation Pooled Fund (TPF). Presentation given at the *U.S. Transportation Research Board 99th Annual Meeting, Washington, D.C., January 16*, by Sonoma Technology, Petaluma, CA. STI-7230.

Ryder O., McCarthy M., Mukherjee A., Brown S., and Eisinger D. (2020) Near-Road Mobile Source Air Toxics (MSATs): 2016-2018 monitoring data, analysis, and implications. Presented at the *U.S. Transportation Research Board, 99th Annual Meeting, Subcommittee on Regional and Project-Level Air Quality Innovations and Resources, Washington, D.C., January 13*, by Sonoma Technology, Inc., Petaluma, CA. STI-7224.

Brown S., Craig K., Eisinger D., Landsberg K., Mukherjee A., Baringer L., Chang S.Y., DeWinter J., McCarthy M., and Huang S. (2019) National assessment of near-road (NR) air quality: requirements, trends, and analysis insights. Presented to the AASHTO Committee on Environment and Sustainability, 2019 Annual Meeting, Minneapolis, MN, August 7, by Sonoma Technology, Inc., Petaluma, CA, and the Washington State Department of Transportation, Olympia, WA. STI-7154.

Eisinger D. (2019) Near-road air quality: Historical perspectives, regulatory requirements, and recent advances. Presented at the U.S. Transportation Research Board 99th Annual Meeting, Workshop 1772 "Near-Road Air Quality: Current Conditions and Analysis Insights" Washington, D.C., January. STI-7225.

Brown S., Craig K., Eisinger D., Landsberg K., Mukherjee A., Baringer L., Chang S.Y., DeWinter J., McCarthy M., and Huang S. (2019) National assessment of near-road (NR) air quality: requirements, trends, and analysis

insights. Presented for the U.S. Transportation Research Board webinar series, September 30, by Sonoma Technology, Inc., and the Washington State Department of Transportation.

- Eisinger D. (2019) Confronting air pollution at its source: vehicular movement. Invited expert for the U.S. Department of State, North India Office, U.S. Embassy-sponsored workshop to assist Indian stakeholders. March 18-19 (several prepared talks and support materials). STI-7091. Workshop description available at: <https://www.apnnews.com/the-north-india-office-u-s-embassy-collaborates-with-rti-international-to-confront-air-pollution-at-its-source/>.
- Craig K., Baringer L., Chang C., Bai S., Landsberg K., and Eisinger D. (2019) Near-road PM_{2.5}, modeled vs. monitored data comparison: Indianapolis case study. Presented at the Transportation Research Board 2019 Annual Meeting, Analysis Subcommittee, Transportation and Air Quality Committee, January 14, by Sonoma Technology, Inc., Petaluma, CA, and the Washington State Department of Transportation, Olympia, WA. STI-7020.
- Seagram A., Huang S., Brown S., Landsberg K., DeWinter J., and Eisinger D. (2019) National assessment of near-road air quality: trends and estimation of near-road PM_{2.5} increment. Presented at the Transportation Research Board 2019 Annual Meeting, Analysis Subcommittee, Transportation and Air Quality Committee, Washington, DC, January 14, by Sonoma Technology, Inc., Petaluma, CA. STI-7034.
- Seagram A., Huang S., Brown S., DeWinter J., Landsberg K., and Eisinger D. (2018) National-scale near-road monitoring findings in 2016. Presented at the Transportation Research Board 2018 Annual Meeting, Analysis Subcommittee, Transportation and Air Quality Committee, January 9, by Sonoma Technology, Inc., Petaluma, CA, and the Washington State Department of Transportation, Olympia, WA. STI-6842.
- Eisinger D. (2017) Smog Check: Lessons from a Policy Making Odyssey. Invited speaker, *U.C. Riverside School of Public Policy & Center for Sustainable Suburban Development*. November 13.
- Brown S., DeWinter J., Graham A., Seagram A., Landsberg K., and Eisinger D. (2017) National-scale near-road air quality data assessment: 2014-2015 findings from the near-road air monitoring program. Presented at the *Transportation Research Board 2017 Annual Meeting, Transportation and Air Quality Committee, January 10*, by Sonoma Technology, Inc., and the Washington State Department of Transportation. STI-6635.
- Brown S., Seagram A., Baringer L., and Eisinger D. (2016) TPF TO 2 phase III: Site selection for case studies and model evaluations. Webinar presented to the Transportation Pooled Fund participants, October 24, by Sonoma Technology, Inc., Petaluma, CA. STI-914202-6600.
- DeWinter J.L., Brown S.G., Graham A.R., Landsberg K., and Eisinger D.S. (2016) National-scale air quality data assessment: initial findings from the near-road NO₂ monitoring program. Poster presented at the *National Ambient Air Monitoring Conference, St. Louis, MO, August 8-11*. STI-6503.
- Reid S., Bai S., Du Y., Craig K., Erdakos G., Baringer L., Eisinger D., and McCarthy M. (2016) Emissions modeling with MOVES and EMFAC to assess the potential for a transportation project to create particulate matter hot spots. Presentation given at the *2016 Transportation Research Board Annual Meeting, Washington, DC, January 13*, by Sonoma Technology, Inc., Petaluma, CA. STI-914202-6417.
- DeWinter J., Brown S., Graham A., Landsberg K., and Eisinger D. (2016) National-scale near-road air quality data assessment: findings from the near-road NO₂ monitoring program. Presentation given at the *2016 Transportation Research Board Annual Meeting, Washington, DC, January 13*, by Sonoma Technology, Inc., Petaluma, CA. STI-914203-6418.

- DeWinter J.L., Brown S.G., Graham A.R., Landsberg K., and Eisinger D.S. (2015) National-scale air quality data assessment: initial findings from the near-road NO₂ monitoring program. Poster presented at the *AGU Fall Meeting, San Francisco, CA, December 14-18*. STI-6332.
- Eisinger D.S., O'Connor K., Wade D., Kennedy R., Luo R., Taylor T., Worthley J., Lord J., and Mortenson M. (2015) Survivor's guide to ozone conformity: Breakout Session 9 - Air Quality. Panel discussion at the *2015 California Transportation Planning Conference: Partnering for Sustainable Transportation, Los Angeles, CA, December 3*. STI-6411.
- Graham A.R., Eisinger D.S., Chazan D., Baldauf R., Thomas J., Zeller L., Bailey C., and Stewart K. (2015) Best practices for reducing exposures to traffic emissions near larger roadways. Presented at the *Educational Conference on the Use of Vegetation as Near-Roadway Mitigation for Air Pollution, Sacramento, CA, June 2*. STI-6294.
- Eisinger D.S. (2015) Overview: Near-Road Air Quality Transportation Pooled Fund (TPF). Presented to the AASHTO Standing Committee on the Environment, Air Quality, Climate Change, and Energy Subcommittee, May 29, by Sonoma Technology, Inc., Petaluma, CA. 914200-6291.
- Graham A., Eisinger D., Pasch A., Tidd L., Alrick D., Bai S., and Hafner H. (2015) NCHRP 25-25(89): establishing representative background concentrations for quantitative hot-spot analysis for particulate matter. Presented at the *Transportation Research Board 94th Annual Meeting, Project-Level Analysis Subcommittee Meeting, Washington, D.C., January 12*, by Sonoma Technology, Inc., Petaluma, CA. STI-6156.
- Eisinger D., Sexton T., Graham A., Reid S., Brown S., and Bai S. (2015) Near-road air quality transportation pooled fund. Presented at the *Transportation Research Board 94th Annual Meeting, Project-Level Analysis Subcommittee Meeting, Washington, D.C., January 12*, by Sonoma Technology, Inc., Petaluma, CA. STI-6155.
- Eisinger D. (2014) Hot topics in transportation: near-road pollution, challenges, and opportunities. Presented at the *Texas Department of Transportation 2014 Environmental Conference, Galveston, TX, September 17*, by Sonoma Technology, Inc., Petaluma, CA. STI-6065.
- Russell A., Eisinger D., Chazan D., Baldauf R., Thomas J., Bailey C., and Stewart K. (2014) Best practices for reducing exposures to traffic emissions near large roadways. Presented at the Near-Road/Smart Growth Workshop, San Francisco, CA, August 27, by Sonoma Technology, Inc., Arup North America Ltd, and U.S. Environmental Protection Agency. STI-910510-6052.
- Pasch A., Russell A., Tidd L., Eisinger D., Alrick D., Hafner H., and Bai S. (2014) Establishing representative background concentrations for quantitative hot-spot analyses for particulate matter. Presented to the National Cooperative Highway Research Program, Pittsburg, PA, August 20, by Sonoma Technology, Inc., Petaluma, CA, and The Louis Berger Group, Inc., Morristown, NJ. STI-6051.
- Eisinger D.S. and Roberts P.T. (2014) Near-road pollution: overview and mitigation. Presented at the Urban Greening & Near Roadway Mitigation Meeting, California Dept. of Forestry & Fire Protection, Sacramento, CA, May 15. STI-5977.
- Russell A., Eisinger D., Brown S., Chazan D., Baldauf R., Thomas J., Bailey C., and Stewart K. (2014) Reducing traffic-related air pollution exposure in smart growth development. Presented at "Developing Healthy and Livable Communities," *2014 Transportation/Land Use Planning/Air Quality (TLUPAQ) Workshop, Charlotte, NC, March 3*, by Sonoma Technology, Inc., Petaluma, CA. STI-5919.
- Pasch A., Bai S., Karner A., Eisinger D., Hafner H., Tidd L., Polidori A., and Niemeier D. (2014) Background and ambient near-road PM concentrations: insights and analysis strategies. Presented at the *Transportation*

Research Board 93rd annual meeting, Workshop 198, Reconciling Transportation and Air Quality Planning to Promote Sustainable Development, Washington, DC, January 12-16, by Sonoma Technology, Inc., Petaluma, CA; Arizona State University, Phoenix, AZ; Louis Berger Group, Inc.; South Coast Air Quality Management Group; and the University of California, Davis. STI-5873.

- Russell A., Eisinger D., Brown S., Chazan D., Baldauf R., Thomas J., Bailey C., and Stewart K. (2014) Best practices for reducing emissions exposure near larger roadways. Presented at the *Transportation Research board 93rd annual meeting, Workshop 198, Reconciling Transportation and Air Quality Planning to Promote Sustainable Development, Washington, DC, January 12-16*, by Sonoma Technology, Inc., Petaluma, CA; Arup North American Ltd.; and the U.S. Environmental Protection Agency, Research Triangle Park, NC. STI-5870.
- Bai S., Eisinger D., Niemeier D., Reid S., Roberts P., and Chenausky B. (2013) Construction activity, emissions, and air quality: findings from recent studies. Presented at the *Transportation Research Board 92nd Annual Meeting, Washington, DC, January 13*. (STI-5575).
- Hafner H.R., Eisinger D.S., and Roberts P.T. (2012) Near-road air pollution and implications for smart growth. Poster presented at the *Better Air Quality Conference, Hong Kong, China, December 5-7*, by Sonoma Technology, Inc., Petaluma, CA (STI-5383).
- Eisinger D.S. (2012) Roads, Pollution and housing: setting some boundaries. Presented at the *11th Annual New Partners for Smart Growth Conference, San Diego, CA, February 3*, by Sonoma Technology, Inc., Petaluma, CA (STI-4343).
- Pasch A.N., Bai S., Eisinger D.S., Craig K.J., Andrews J., and Elder J. (2012) PM hot-spot analysis using AERMOD & EMFAC2011: technical issues and lessons learned. Presented at the *TRB 91st Annual Meeting, Washington, D.C., January 22*, by Sonoma Technology and the California Department of Transportation (STI-4332).
- Eisinger D.S. (2011) Smart growth and near-road air pollution: avoiding unintended consequences. Presented to the *Sacramento Metropolitan Air Quality Management District, Sacramento, CA, June 20*, by Sonoma Technology, Inc., Petaluma, CA (STI-4155).
- Reid S.B., Roberts P.T., Eisinger D.S., Vaughn D.L., Pollard E.K., DeWinter J.L., Du Y., Ray A.E., Brown S.G., and Chenausky B.T. (2011) Construction activity, emissions, and air quality impacts: real-world observations from an Arizona road-widening case study. Poster presented at the *21st CRC Real World Emissions Workshop, San Diego, CA, March 20-23*, by Sonoma Technology, Inc., Petaluma, California, and Arizona Department of Transportation, Phoenix, AZ (STI-4105).
- Eisinger D. (2011) Smart growth and near-road air pollution: understanding the link. Presented at the *10th Annual New Partners for Smart Growth Conference, Charlotte, NC, February 5*, by Sonoma Technology, Inc., Petaluma, CA (STI-620000-4082).
- Bai S., Eisinger D., Phillips J., Black T., Waters M., and Amador J. (2011) Low-carb land: informing your land use decisions to consider travel and CO₂ impacts. Presented at the *90th Annual TRB Meeting, Washington, D.C., January 26*, by Sonoma Technology, Inc., Washington State Department of Commerce, Thurston Regional Planning Council, and Washington State Department of Transportation (STI-620000-4081).
- Karner A., Eisinger D.S., and Niemeier D. (2010) Near-roadway air quality: findings from real-world data. Presented at the *Coordinating Research Council (CRC) Mobile Source Air Toxics (MSAT) Workshop, Sacramento, CA, December 1*, by the UC Davis-Caltrans Air Quality Project and Sonoma Technology, Inc. STI-4043.

- Reid S.B., Eisinger D.S., Roberts P.T., Vaughn D.L., Pollard E.K., DeWinter J.L., Du Y., Ray A.E., Brown S.G., and Chenausky B.T. (2010) Field study of PM_{2.5} emissions from a road-widening project. Paper presented at the *19th International Emissions Inventory Conference, San Antonio, TX, September 29*. STI-3959.
- Timoshek A., Eisinger D., Bai S., and Niemeier D. (2010) Mobile source air toxics emissions: sensitivity to traffic volume, fleet composition, and average speed. Poster presented at the *89th Transportation Research Board Annual Meeting, Session 438, Washington, DC, January 12*, by Sonoma Technology, Inc., Petaluma, CA, and University of California, Davis, CA (STI 909019-3781).
- Reid S.B., Roberts P.T., Eisinger D.S., Wheeler N.J.M., Pollard E.K., and Du Y. (2009) The Arizona construction emissions field study. Poster presented at the *Eighth Annual CMAS Conference, Chapel Hill, NC, October 19-21* (STI-3716).
- Bai S., Eisinger D., Wang R., and Niemeier D. (2009) Construction equipment retrofits and replacements: a new tool to estimate emission reduction benefits. Presented at the *19th CRC On-road Emissions Workshop, San Diego, CA, March 24* (STI-3597).
- Bai S., Eisinger D., and Niemeier D. (2009) MOVES vs. EMFAC: a comparison of greenhouse gas emissions using Los Angeles County. Presented at the *Transportation Research Board (TRB) 88th Annual Meeting, Washington, D.C., January 13* (STI-3541).
- Chen H., Bai S., Eisinger D.S., Niemeier D., and Claggett M. (2009) Predicting near-road PM_{2.5} concentrations: a comparative assessment of CALINE4, CAL3QHC and AERMOD. Presented at the *Transportation Research Board (TRB) 88th Annual Meeting, Washington, D.C., January 13*.
- Eisinger D.S. (2009) Incorporating GHG considerations into transportation project and metropolitan planning requirements. Presented at the *TRB Annual Research Conference, Session #530, Washington, DC, January 13* (STI-3539).
- Karner A., Eisinger D.S., Bai S., and Niemeier D.A. (2009) Mitigating diesel truck impacts in environmental justice communities: transportation planning and air quality in Barrio Logan, San Diego. Presented at the *Transportation Research Board 88th Annual Meeting, Washington, D.C., January 13*.
- Dai, Z., D. Niemeier, and D. Eisinger (2008) Development of modal driving cycles for light duty vehicles. Presented at the *18th CRC On-Road Vehicle Emissions Workshop, San Diego, CA, April 1*. Sponsored by the California Department of Transportation.
- Bai S., Eisinger D.S., and Niemeier D. (2007) Mobile source air toxics (MSATs): assessing project-level impacts. Presented at the *2007 CAPCOA Health Conference: Understanding and Addressing Health Impacts of Air Pollution on Communities, Carson, CA, September 19*, by the UC Davis-Caltrans Air Quality Project.
- Eisinger D.S. and Niemeier D. (2007) Construction emissions: using project data to improve regional inventories. Invited presentation at the *86th Annual Meeting of the Transportation Research Board, Workshop 135: Guidelines on Conducting Project Level Air Quality Analysis, Washington, D.C., January 21*. STI-906044-3130.
- Eisinger D.S. and Niemeier D. (2007) Qualitative project analysis: key concepts. Invited presentation at the *86th Annual Meeting of the Transportation Research Board, Workshop 135: Guidelines on Conducting Project Level Air Quality Analysis, Washington, D.C., January 21*. STI-906044-3131.
- Van Houtte J., Eisinger D.S., and Niemeier D.A. (2007) Project assessments for 8-hour ozone conformity in isolated rural areas. Paper presented at the *U.S. Transportation Research Board, 86th Annual Meeting, Session 458, Environment and Energy, Washington, D.C., Paper # 07-0822, January*.

- Bai S., Eisinger D., and Niemeier D. (2006) Project-level air toxics: southern California case study using a new analysis framework. Presented at the *CRC MSAT Workshop, Phoenix, AZ, October 25*, University of California, Davis-Caltrans Air Quality Project, Davis, CA.
- Eisinger D.S. (2006) Alternatives to automobile use. Invited speaker, Citizens Advisory Committee, Oahu Metropolitan Planning Organization, Honolulu, HI, July 19.
- Eisinger D.S. and Tamura T. (2005) Air toxics: insights for transportation project-level analysis. Presented in *Workshop 124 at the 84th Transportation Research Board Annual Meeting, Washington DC, January 9* (STI-2673).
- Eisinger D.S. and Niemeier D. (2004) Transportation control measures (TCMs): federal requirements and SIP development considerations. Paper No. 04-2720 in *83rd Transportation Research Board Annual Meeting, Washington DC, January 11-15* (STI-901270-2402).
- Eisinger D.S., Nanzetta K., Kear T., Niemeier D., O'Loughlin R., and Brady M.J. (2003) Particulate matter and transportation projects, an analysis protocol. Paper No. 70067 in *Air & Waste Management Association's 96th Annual Conference and Exhibition, "Energy, Economic, and Global Challenges: Environment in the Balance", San Diego, CA, June 22-26*. STI-2328.
- Eisinger D.S. (2002) Transportation Conformity. Invited speaker, Air & Waste Management Association, Golden West Section Meeting. San Francisco, April 25.
- Eisinger D.S., Niemeier D., and Kear T. (2002) The California Department of Transportation/Air Resources Board (CAMP) program: New research to improve speed correction factors and mobile source emissions modeling. Paper in proceedings of and presentation to *U.S. Environmental Protection Agency's 11th Annual Inventory Conference, "Emissions Inventories-Partnering for the Future", Atlanta, GA, April 16-18*. STI-901260-2169.
- Eisinger D.S. (2002) Conformity: avoiding pitfalls from outdated planning assumptions. Presented to *Air & Waste Management Association Annual Meeting, West Coast Section, "An Environment for a Dynamic America," Los Angeles, CA, April 11-12*. STI-901270-2184.
- Eisinger D.S. (1998) Who's winning the smog wars? Policies and politics of air pollution. Invited lecturer at the University of Hawaii, Manoa, The Shunzo Sakamaki Extraordinary Lecture Series, Honolulu, HI, July 29.
- Eisinger D. (1997) Lessons from the U.S. I/M regulatory experience: a California case study. Talk presented at the *Intercontinental Mobile Sources/Clean Air Conference, Madrid, Spain, March 9-11*.
- Santini D., Eisinger D., Sperling D., and Patterson P. (1997) A brief summary of key observations. *The Conference on Policies for Fostering Sustainable Transportation Technologies, Pacific Grove, CA, August 17-20*.
- Eisinger D.S. (1996) Battling the smog wars: who won? Invited lecturer at the University of California, Davis, Institute of Transportation Studies, Winter 1996 Seminar Series, Davis, CA, February 2.
- Eisinger D.S. (1995) Public policy lessons from smog check. Invited lecturer at the University of California, Berkeley, Graduate School of Public Policy, Berkeley, CA, January 30.
- Eisinger D.S. (1994) Costs and benefits of inspection and maintenance options. Invited panelist at the Reason Foundation Forum, Los Angeles, CA, December 13.
- Eisinger D.S. (1994) Research needs for transportation and air quality. Invited panelist at the National Academy of Sciences, Transportation Research Board, Irvine, CA, November 4.
- Eisinger D.S. (1994) The transportation, land use, air quality connection. Invited panelist at the UCLA Extension Policy and Research Symposium, Temecula, CA, October 17.

- Eisinger D.S. (1994) What's new? Air quality conformity. Invited speaker at the 20th Annual Meeting and Reunion of the Federal Region IX Intermodal Planning Group, Oakland, CA, September 20.
- Eisinger D.S. (1993) Negotiating environmental protection. Invited lecturer at the Golden Gate University, Graduate Student Program, Environmental Policy Course, San Francisco, CA, November 2.
- Eisinger D.S. (1992) Employer trip reduction. Principal speaker at the National Association of Regional Councils and the American Public Transit Association, Long Beach, CA, April 9.
- Eisinger D.S. (1992) ISTEA and the Clean Air Act. Invited speaker at the Sacramento Area Council of Governments Statewide Workshop, Sacramento, CA, June 26.
- Eisinger D.S. (1992) Perspectives on the California transportation plan. Invited speaker at the Caltrans Statewide Workshop, San Francisco, CA, November 20.
- Austin B.S., Eisinger D.S., and Higgins T. (1991) TCMs—how effective are they? New methods to estimate emission reductions from transportation control measures. Paper presented at the *84th Annual Meeting of the Air & Waste Management Association, Vancouver, BC, June 16-21*.
- Eisinger D.S., Shepard S.B., Duvall L.L., and Austin B.S. (1991) Analyzing transportation control measure packages. Paper presented at the *Air & Waste Management Association and U.S. Environmental Protection Agency Specialty Conference on Emission Inventory Issues in the 1990s, Durham, NC, September 9-12*.
- Eisinger D.S. and Simmons R.A. (1989) Screening lifetime risks to help prevent radon exposure: a methodology for public health policy makers. Paper presented at the *Society for Risk Analysis, San Francisco, CA, October 30 (SYSAPP-89/154)*.
- Eisinger D.S., Ireson R.G., Deakin E., and Wicher F.P. (1989) Transportation control measures: technical and institutional guidance for state and local governments. Paper presented at the *82nd Annual Meeting of the Air & Waste Management Association, Anaheim, CA, June 25-30*.
- Eisinger D.S., Mudarri D., and Austin B.S. (1988) New policy challenges, limited analytical tools: using existing health standards to diagnose indoor air quality problems. Paper presented at the *10th Annual Research Conference for the Association for Public Policy Analysis and Management*.
- Eisinger D.S., Peacock M.C., and Falk S.B. (1987) Tourist flights over the Grand Canyon: the potential for negotiated solutions to similar problems. Paper presented at the *9th Annual Research Conference for the Association for Public Policy Analysis and Management*.

Formal Reports

- Kramer S., Lavezzo T., Hafner H., Eisinger D., Soga K., Zhao B., Comfort L., Grandy R., Johnson K., Lautenberger C., and Moghaddas J. (2022) Literature review of the state-of-the-science in wildfire evacuation. Final report prepared for Marin Wildfire Prevention Authority, San Rafael, CA, by Sonoma Technology, Petaluma, CA, STI-922025-7776. October.
- Baldauf R., Davidson K., Sullivant S., Bailey C., Ryder O.S., Eisinger D.S., and Chazan D. (2021) Best practices for reducing near-road pollution exposure at schools. Guidebook by the U.S. Environmental Protection Agency, Washington, D.C., Sonoma Technology, Petaluma, CA, and Arup North America, San Francisco, CA, EPA-420-R-21-022, October. Available at <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013GDE.pdf>.
- Houk J., Huang J., Chang S.Y., and Eisinger D. (2021) Benefits of state-level adoption of California medium- and heavy-duty vehicle regulations. Final report prepared for The International Council on Clean

Transportation, San Francisco, CA by Sonoma Technology, Inc., Petaluma, CA, October. Available at <https://theicct.org/sites/default/files/publications/state-level-hdv-emissions-reg-oct21.pdf>.

- Ryder O.S., McCarthy M.C., Eisinger D.S., and Brown S.G. (2019) Ambient near-road mobile source air toxics concentrations in the United States. Final report prepared for the Texas Department of Transportation, Austin, TX, by Sonoma Technology, Inc., Petaluma, CA, STI-914206-7206, December 31.
- Mukherjee A., Ryder O., McCarthy M., Brown S., and Eisinger D. (2019) Near-road particulate pollution: PM_{2.5}, black carbon, and ultrafine particles at U.S. near-road monitoring sites. Final report prepared for the Texas Department of Transportation, Austin, TX, by Sonoma Technology, Inc., Petaluma, CA, STI-914206-7208, December 31.
- Erdakos G., Chang S.Y., Eisinger D., Heller A., and Unger H. (2019) Zero emission vehicles: forecasting fleet scenarios and their emissions implications. Final report prepared for NCHRP 25-25, Task 115, by Sonoma Technology, Inc., Petaluma, CA, and Louis Berger, Denver, CO, STI-918083-7043, November. Available at <http://www.trb.org/Main/Blurbs/180232.aspx>.
- Mukherjee A., McCarthy M.C., Brown S.G., Huang S., Landsberg K., and Eisinger D.S. (2019) Influence of roadway emissions on near-road PM_{2.5}: monitoring data analysis and implications for determining transportation projects of local air quality concern (POAQC). Final report prepared for the Washington State Department of Transportation, lead agency for the Near-Road Air Quality Research Transportation Pooled Fund, by Sonoma Technology, Inc., Petaluma, CA, STI-914203-7088, October.
- Craig K., Baringer L., Chang S.-Y., McCarthy M., Bai S., Ravi V., Eisinger D., and Landsberg K. (2019) Analysis of modeled and measured near-road PM_{2.5} concentrations in Indianapolis and Providence during 2015 and 2016. Final report prepared for the Washington State Department of Transportation, Olympia, WA, by Sonoma Technology, Inc., Petaluma, CA, and the Washington State Department of Transportation, Olympia, WA, STI-914202-7127, October.
- DeWinter J., Brown S., and Eisinger D. (2019) Factors affecting estimates of background concentrations. Final report prepared for the Washington State Department of Transportation, Olympia, WA, by Sonoma Technology, Inc., Petaluma, CA, STI-914203-7078, May 2.
- Marrero J.E. and Eisinger D.S. (2018) The Fresno TREES project: Tree planting along Roads to help Eliminate pollution Exposure and Sequester carbon. Initial study plan and corridor assessment prepared for the California Air Resources Board, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-917401-6974, August 31.
- Seagram A., Brown S., Huang S., Penfold B., and Eisinger D. (2018) National near-road data assessment: report No. 3 with 2016 data. Final report prepared for the Washington State Department of Transportation, Olympia, WA, by Sonoma Technology, Inc., Petaluma, CA, STI-914203-6821, February 15.
- Bai S., Craig K., Reid S., Eisinger D., Farstad E., Erdakos G., Du Y., and Baringer L. (2017) Quantitative particulate matter hot-spot analysis best practices guidebook. Report prepared for the California Department of Transportation, Sacramento, CA by Sonoma Technology, Inc., Petaluma, CA, CTAQ-RT-17-317.02.6, STI-914112-6704-FR, June.
- Bai S., Craig K., Reid S., Eisinger D., Farstad E., Erdakos G., Du Y., and Baringer L. (2017) Streamlining air dispersion modeling to support quantitative particulate matter hot-spot analysis. Final report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-RT-17-317.12.29; STI-914112-6707-FR, June. Available at <http://www.dot.ca.gov/env/air/docs/dispersion-modeling-support-pm-hot-spot-analysis.pdf>.

- Erdakos G.B., Bai S., Baringer L.M., Craig K.J., and Eisinger D.S. (2017) Modeling elevated roadways in AERMOD View. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Petaluma, CA, STI-914112-6717-TM, May.
- Bai S., Du Y., Baringer L., Chang C., Seagram A., and Eisinger D. (2017) Greenhouse gas analysis for transportation projects. Report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc. Petaluma, CA, CTAQ-RT-17-317.13.1, STI-914113-6761-FR, June.
- Brown S.G., Seagram A.F., and Eisinger D.S. (2017) Near-Road Pooled Fund Task Order 2, Phase 2 – Air quality, meteorological, and traffic data for the 25 highest daily PM, NO₂, and CO concentrations at selected near-road monitoring sites in 2015. Technical memorandum prepared for Karin Landsberg, Washington Department of Transportation, STI-914202-6665-TM, February 15.
- Graham A., McCarthy M., Baringer L., Pavlovic N., Brown S., and Eisinger D. (2016) Effects of roadside barriers on near-road pollutant concentrations. Final report prepared for the Washington State Department of Transportation, Olympia, WA, by Sonoma Technology, Inc., Petaluma CA, STI-914205-6495, December.
- DeWinter J.L., Brown S.G., Seagram A.F., Graham A.R., and Eisinger D.S. (2016) National near-road data assessment: Report No. 2 with 2015 data. Final report prepared for the Washington State Department of Transportation, lead agency for the Near-Road Air Quality Research Transportation Pooled Fund, TPF-5(284), by Sonoma Technology, Inc., Petaluma, CA, STI-914203-6482, October 7.
- McCarthy M.C., O'Brien T.E., Brown S., Bai S., and Eisinger D.S. (2016) Mobile source air toxics analysis of the Detroit Near-Road Study. Final report prepared for the Federal Highway Administration, Washington, DC, by Sonoma Technology, Inc., Petaluma, CA, STI-915054-6471-FR, June 3.
- Reid S.B., Bai S., Eisinger D.S., Erdakos G.B., Du Y., and Baringer L. (2016) Scoping study to identify potential project types and situations that will not create PM hot spots. Final report prepared for the Washington State Department of Transportation, Seattle, WA, by Sonoma Technology, Inc., Petaluma, CA, STI-914202-6259-FR, February.
- Erdakos G., Craig K., Baringer L., Reid S., Bai S., and Eisinger D. (2016) Illustration of roadway source setup in AERMOD view for PM hot-spot analyses. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, STI-914112-6453-TM, February 12.
- Bai S., Reid S., and Eisinger D. (2015) Potential project-level PM mitigation measures. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-TM-15-317.12.2, October 30.
- Craig K., Baringer L., Reid S., Bai S., and Eisinger D. (2015) Future-year background PM concentrations. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-TM-15-317.12.1, October 30.
- Eisinger D.S., Graham A., Carrier L., and Healy A. (2015) TPF-5(284) near-road transportation pooled fund: information exchange website. Report prepared for the Washington State Department of Transportation, Seattle, WA, by Sonoma Technology, Inc., Petaluma, CA, STI-914201-6382, October.
- Bai S., Craig K., Graham A., Reid S., Eisinger D., Farstad E., Erdakos G., Du Y., and Baringer L. (2015) Quantitative particulate matter hot-spot analysis best practices guidebook. Prepared for the California Department of Transportation, Sacramento, CA, CTAQ-RT-15-317.02.3, September 30.

- Graham A.R. and Eisinger D.S. (2015) Case studies of truck replacement mitigation programs. Final report prepared for the Washington State Department of Transportation, Olympia, WA, by Sonoma Technology, Inc., Petaluma, CA, STI-914205-6229-FR, September 11
- Graham A., Baringer L., Bai S., and Eisinger D. (2015) Caltrans district scan to identify CEQA analysis support needs. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-914101-6318-TM, July 10.
- Bai S., Graham A., Reid S., Craig K., Du Y., Erdakos G., Baringer L., and Eisinger D. (2015) Potential transportation project design concepts and features to reduce PM impacts. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-914102-6284-TM, May.
- Farstad E., Craig K.J., Bai S., Erdakos G.B., and Eisinger D.S. (2015) Guidance for reviewing and quality-checking quantitative PM hot-spot analyses. Technical memorandum prepared for Caltrans by Sonoma Technology, Inc., Petaluma, CA, STI-914102-6231-TM, April.
- Eisinger D.S. and McCarthy M.C. (2015) Sound wall analysis issues. White paper prepared for Caltrans, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STU-914101-6191, February.
- Bai S., Reid S., Du Y., Eisinger D., Benson P., and Niemeier D. (2014) Construction activities and emissions: comparison case studies. Final report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-914105-6105-FR, December.
- Bai S., Pasch A.N., Craig K.J., Eisinger D.S., Niemeier D., Graham A.R., and Brown S.G. (2014) Quantitative particulate matter hot-spot analysis guidance, v3.2. Final revised report prepared for the California Department of Transportation (Caltrans), Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-RT-14-317.02.01; STI 909116-5518-FR, November 26.
- Eisinger D., Bai S., and Craig K. (2014) PM hot-spot analysis best practices: summary of current experiences. Technical memorandum prepared for the California Department of Transportation by Sonoma Technology, Inc., Petaluma, CA, STI-914102-6089-TM, October 28.
- Russell A., Eisinger D., and Chazan D. (2014) Outreach materials evaluation. Final report prepared for the U.S. Environmental Protection Agency, Research Triangle Park, NC by Sonoma Technology, Inc., Petaluma, CA, STI-910510-6060, October 3.
- Russell A. and Eisinger D. (2014) Assessment of tools for evaluating near-road exposure issues for WA 5-10, task 2. Technical memorandum prepared for the U.S. Environmental Protection Agency, Research Triangle Park, NC by Sonoma Technology, Inc., Petaluma, CA, STI-910510-6056, October.
- Russell A., Eisinger D., and Bai S. (2014) Best practices for reducing near-road pollution exposure at schools. Final report prepared for the U.S. Environmental Protection Agency, Research Triangle Park, NC by Sonoma Technology, Inc., Petaluma, CA, STI-910510-6024, September.
- Battelle and Texas A&M Transportation Institute (2014) Air quality and congestion mitigation measure outcomes assessment study, "CMAQ Case Study Team Technical Expert." Final technical report prepared for the Federal Highway Administration, Washington, DC, by Battelle, Columbus, OH, and Texas A&M Transportation Institute (TTI), College Station, TX, FHWA-HEP-15-002, September.
- Pasch A., Russell A., Eisinger D., Alrick D., Hafner H., Bai S., Tidd L., and Sliker L. (2014) Establishing representative background concentrations for quantitative hot-spot analyses for particulate matter. Final report prepared for the American Association of State Highway and Transportation Officials by Sonoma Technology, Inc., Petaluma, CA, and The Louis Berger Group, Inc., STI-913043-5996, August.

- Du Y., Bai S., Reid S., Benson P., and Eisinger D. (2014) Evaluation of construction equipment work production rates. Technical memorandum prepared for the California Department of Transportation by Sonoma Technology, Inc., Petaluma, CA, STI-914105-6030, July.
- Bennett D., Pasch A., Eisinger D., and Lurmann F. (2014) Review of March 2014 Draft Health Risk Assessment for the SR 710 North Study. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by the Department of Public Health Sciences, University of California, Davis, CA, and Sonoma Technology, Inc., Petaluma, CA, STI-914101-5958-TM, May 1.
- Russell A.R., Pasch A.N., Eisinger D.S., Alrick D.M., Hafner H.R., and Bai S. (2014) Illustrative examples of estimating background PM concentrations. Technical memorandum prepared for the National Cooperative Highway Research Program by Sonoma Technology, Inc., Petaluma, CA, STI-913043-5937-TM, April 4.
- Erdakos G.B., Pasch A.N., Bai S., Eisinger D.S., and Prouty J.D. (2013) DVTool user guide. Prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-OT-13-270.16.1; STI-909116-5751-UG, September 16.
- Bai S., Du Y., and Eisinger D. (2013) Using LEV-III adjustment factors in project emissions modeling. Technical memorandum prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909119-5755-TM, September 13.
- Russell A., Eisinger D., Brown S., and Lurmann F. (2013) Literature review on near-road public health concerns for WA 4-16, Task 2. Technical memorandum prepared for the U.S. Environmental Protection Agency, Research Triangle Park, NC, by Sonoma Technology, Inc., Petaluma, CA, STI-910416-5627-TM, August 30.
- Russell A., Eisinger D., Brown S., Roberts P., and Chazan D. (2013) Literature review on mitigation of near-road pollution exposure for WA 4-16, Task 2. Technical memorandum prepared for the U.S. Environmental Protection Agency, Research Triangle Park, NC, by Sonoma Technology, Inc., Petaluma, CA, STI-910416-5631-TM, August 30.
- Bai S., Eisinger D., Niemeier D., Timoshek A., Ekstrand A., and Du Y. (2013) Greenhouse gas analysis protocol for transportation projects. Final report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, and the UC Davis Department of Civil and Environmental Engineering, Davis, CA, STI-909102-3987, May 13.
- Bai S., Eisinger D.S., Niemeier D., Benson P., Reid S.B., Du Y., and Pollard E.K. (2012) Construction emissions modeling: guidance and tools. Final report prepared by Sonoma Technology, Inc., Petaluma, CA, CTAQ-RT-12-270.15.01; STI-909115-5564-FR, December 28.
- Bai S., Pasch A.N., Craig K.J., Eisinger D.S., Niemeier D., and Brown S.G. (2012) Quantitative particulate matter hot-spot analysis guidance, version 3.1. Report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, and UC Davis Department of Civil and Environmental Engineering, Davis, CA, STI-909116-5518-FR, November 30.
- Eisinger D., Brown S., Hafner H., Bai S., Pasch A., Zahn P., and Jumbam L. (2012) Near-road nitrogen dioxide assessment. Final report prepared by Sonoma Technology, Inc., Petaluma, CA, CTAQ-RT-12-270.09.02/STI-909109-5382-FR, August.
- Porter C., Kear T., Kall D., Zemba S., and Eisinger D.S. (2012) NCHRP 25-25 Task 70: assessment of quantitative mobile source air toxics in environmental documents. Prepared for the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on the Environment by Cambridge

Systematics, Inc., Cambridge, MA; Cambridge Environmental, Inc., Cambridge, MA; and Sonoma Technology, Inc., Petaluma, CA, August.

- Erdakos G.B., Craig K.C., Pasch A.N., Bai S., and Eisinger D.S. (2012) Using AERMOD output and monitoring data to calculate design values and determine conformity for quantitative PM hot-spot analyses. Technical memorandum prepared for the California Department of Transportation by Sonoma Technology, Inc., Petaluma, CA, STI-909116-5407-TM, June 29.
- Pasch A., Craig K., Bai S., Pollard E., Eisinger D., and Du Y. (2012) Selecting and processing representative meteorological data for use in AERMOD to complete quantitative PM hot-spot analyses. Technical memorandum prepared for California Department of Transportation, Sacramento, CA by Sonoma Technology, Inc., Petaluma, CA, STI-909116-5380-TM, May 21.
- McCarthy M.C., Eisinger D.S., Harvey J.T., and Wang T. (2012) TO-7 Rolling resistance literature review. Final report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909107-4037-FR, May 1.
- Pasch A.N., Craig K.J., Bai S., and Eisinger D.S. (2011) AERMOD particulate matter hot-spot analyses: simple highway project example. Report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909106-4125, June 28.
- Craig K.J., Bai S., Eisinger D.S., and Brown S.G. (2011) Guidance for using AERMOD to complete particulate matter hot-spot analyses. Report prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909106-3966, June 28.
- Eisinger D.S. and Roberts P.T. (2011) Strategic planning: transportation-related air quality and climate change discussion paper. Prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909101-4135, May.
- McCarthy M.C. and Eisinger D.S. (2011) Soundwall impacts on near-road air quality. Final report by Sonoma Technology, Inc., Petaluma, CA, STI-909108-4021-FR, January.
- Roberts P.T., Reid S.B., Eisinger D.S., Vaughn D.L., Pollard E.K., DeWinter J.L., Du Y., Ray A.E., and Brown S.G. (2010) Construction activity, emissions, and air quality impacts: real-world observations from an Arizona road-widening case study. Final report prepared for the Arizona Department of Transportation, Phoenix, AZ by Sonoma Technology, Inc., Petaluma, CA, STI-908017-3971-FR, October.
- Bai S., Eisinger D.S., and Funk T.H. (2010) Guidance for estimating naphthalene and polycyclic organic matter emissions from transportation projects. Technical memorandum prepared for Jim Andrews, P.E., California Department of Transportation, Division of Environmental Analysis, Office of Hazardous Waste, Air and Noise, by Sonoma Technology, Inc., STI-909103-3820, June.
- Bai S., Phillips J., Eisinger D.S., Amador J., Black T., Waters M., and Reid S.B. (2010) TESTER: The emissions sensitivity tool to evaluate CO₂ reductions. Final report prepared for the Office of Planning, U.S. Federal Highway Administration, STI-908062-3842-FR, March.
- Niemeier D., Eisinger D.S., and Bai S. (2009) Developing effective and quantifiable air quality mitigation measures: overview report. Prepared for the U.C. Davis-Caltrans Air Quality Project, October 29.
- Bai S., Eisinger D.S., Waters M., Phillips J., and Black T. (2009) Brief literature review, data compilation, and modeling approach. Land use changes and greenhouse gas emissions: a new analysis tool for small and medium metropolitan areas. Prepared for the Federal Highway Administration Office of Planning, Olympia Fields, IL, by Sonoma Technology, Inc., Petaluma, CA, Washington State Department of Transportation,

Seattle, WA, Washington State Department of Commerce, Olympia, WA, and Thurston Regional Planning Council, Olympia, WA, STI-908062-3717-TM, September.

- Fuller M., Bai S., Eisinger D.S., and Niemeier D. (2009) Practical mitigation measures for diesel particulate matter: near-road vegetation barriers. Report prepared for the U.C. Davis-Caltrans Air Quality Project, July 14.
- Niemeier D.A., Eisinger D., Kendall A., and Harvey J.T. (2009) Prioritization of transportation projects for economic stimulus with respect to greenhouse gases. Final report prepared for the California Department of Transportation by University of California, Davis, CA, and Sonoma Technology, Inc., Petaluma, CA, June.
- Wang R., Eisinger D.S., Bai S., and Niemeier D. (2008) Construction equipment retrofits and replacements: a new tool to estimate emission reduction benefits. Final report prepared by the U.C. Davis-Caltrans Air Quality Project, Davis, CA, Task Order No. 81, December 30.
- Karner A., Eisinger D.S., Bai S., and Niemeier D. (2008) Mitigating diesel truck impacts in environmental justice communities: transportation planning and air quality in Barrio Logan, San Diego. Report prepared for the U.C. Davis-Caltrans Air Quality Project, November 30.
- Dai Z., Niemeier D., and Eisinger D. (2008) Driving cycles: a new cycle-building method that better represents real-world emissions. Prepared by the UC Davis-Caltrans Air Quality Project, University of California, Davis, CA, Task Order No. 66, September 18.
- Bai S., Eisinger D., and Niemeier D. (2008) MOVES vs. EMFAC: a comparative assessment based on a Los Angeles County case study. Prepared by the U.C. Davis-Caltrans Air Quality Project, Davis, CA, Task Orders No. 9 and 53, August 22.
- Chen H., Bai S., Eisinger D., Niemeier D., and Claggett M. (2008) Modeling uncertainties and near-road PM_{2.5}: a comparison of CALINE4, CAL3QHC and AERMOD. Prepared by the U.C. Davis-Caltrans Air Quality Project, Davis, CA, Task order numbers 67 and 80, August 21.
- Wu P., Bai S., Eisinger D., and Niemeier D. (2007) CT-EMFAC: a computer model to estimate transportation project emissions. Prepared for the California Department of Transportation, Division of Transportation Planning, Sacramento, CA, by the UC Davis-Caltrans Air Quality Project, Davis, CA, in response to a request to create a transportation project-level emissions analysis tool based on the California Air Resources Board EMFAC2007 emissions model, Task Orders No. 61 and 67, December 10.
- Eisinger D.S. (2007) Smog check: a policy making odyssey. Final fellowship report prepared for the Resources for the Future "Fellowship in Environmental Regulatory Implementation" Program made possible by a grant from the Andrew W. Mellon Foundation, 906037-3142-FR, September.
- Bai S., Eisinger D., and Niemeier D. (2006) Estimating mobile source air toxics emissions: a step-by-step project analysis methodology. Report prepared for the California Department of Transportation, Sacramento, CA, by the University of California, Davis-Caltrans Air Quality Project, Davis, CA, October.
- Kear T., Eisinger D., and Niemeier D. (2006) Using "SIP Currency" principles to address outdated conformity emission budgets. Preliminary discussion paper prepared for the California Department of Transportation, Sacramento, CA, by University of California, Davis, CA, August.
- Van Houtte J., Niemeier D., and Eisinger D. (2006) Rural area conformity guidance: completing 8-hour ozone project assessments. UC Davis-Caltrans Air Quality Project prepared for the California Department of Transportation, Sacramento, CA, by the University of California, Davis, CA, September. Available on the Internet at <http://AQP.engr.ucdavis.edu>.

- Jungers B.D., Kear T.P., Eisinger D.S., and Niemeier, D. (2006) A Survey of Air Quality Dispersion Models for Project-Level Conformity Analysis. Report prepared for the California Department of Transportation, Sacramento, CA, by the Department of Civil and Environmental Engineering, University of California, Davis, CA, Task Order No. 44, June.
- McCarthy M.C., Eisinger D.S., Hafner H.R., Tamura T.M., Chinkin L.R., Roberts P.T., Clark N., McMurry P.H., and Winer A. (2005) Strategic plan for particulate matter research: 2005-2010. Final report prepared for the Federal Highway Administration, Office of Natural Environment, Washington, DC, by Sonoma Technology, Inc., Petaluma, CA; West Virginia University, Department of Mechanical and Aerospace Engineering, Morgantown, WV; University of Minnesota, Particle Technology Lab, Minneapolis, MN; and University of California, Los Angeles, School of Public Health, Environmental Science & Engineering, Los Angeles, CA, STI-904750.06-2770-FR, November. Available on the Internet at http://www.fhwa.dot.gov/environment/air_quality/research/particulate_matter/strategic_plan_2005-2010/.
- McCarthy M.C., Eisinger D.S., and Hafner H.R. (2005) FHWA PM research plan: workshop summary. Summary of the FHWA Strategic Workplan for Particulate Matter Research Workshop prepared for the U.S. Federal Highway Administration, Washington, DC, by Sonoma Technology, Inc., Petaluma, CA, STI-904755-2746, May.
- Mid-America Regional Council (2005) A clean air action plan for the Kansas City region. Report prepared by Lyle R. Chinkin, Neil J.M. Wheeler, Todd Tamura, and Douglas S. Eisinger at Sonoma Technology, Inc., Petaluma, CA, and others, 901470.04-2936, May.
- Tamura T.M., McCarthy M.C., Hafner H.R., Eisinger D.S., Roberts P.T., Lurmann F.W., Clark N., McMurry P.H., and Winer A. (2005) Transportation and particulate matter: assessment of recent literature and ongoing research. Final report prepared for the U.S. Federal Highway Administration, Washington, DC, by Sonoma Technology, Inc., Petaluma, CA; West Virginia University, Morgantown, WV; University of Minnesota, Minneapolis, MN; and University of California, Los Angeles, Los Angeles, CA, STI-904751-2669-FR, March.
- Tamura T.M., Hafner H.R., Brown S.G., and Eisinger D.S. (2005) Investigation of consistency between ambient monitoring data and MOBILE6.2 emissions predictions for air toxics. Final report prepared for the Federal Highway Administration, Washington, DC, by Sonoma Technology, Inc., Petaluma, CA, STI-903632-2621-FR, March.
- Nanzetta K., Eisinger D., Kear T., O'Loughlin R., Brady M.J., and Niemeier D. (2005) Particulate matter and transportation projects, an analysis protocol. Final technical report prepared for the California Department of Transportation Environmental Program, Sacramento, CA, and the U.S. Federal Highway Administration Western Resource Center, San Francisco, CA, by U.C. Davis, Davis, CA, the U.S. Federal Highway Administration, San Francisco, CA, and the California Department of Transportation, Sacramento, CA, February.
- Eisinger D.S. and Niemeier D. (2004) Transportation control measures (TCMs): guidance for conformity and state implementation plan development. Final report prepared for The California Department of Transportation by University of California, Davis, CA, and Sonoma Technology, Inc., Petaluma, CA, STI-902390-2597, August.
- Tamura T.M., Bai S., Eisinger D.S., and Sullivan D.C. (2004) Revision of the Minneapolis-St. Paul carbon monoxide maintenance plan. Final report prepared for Minnesota Pollution Control Agency, St. Paul, MN, by Sonoma Technology, Inc., Petaluma, CA, STI-904360-2583-FR, August.

- Shafizadeh K., Niemeier D., and Eisinger D. (2004) Gross emitting vehicles: a review of the literature. Literature review prepared for the California Department of Transportation, Sacramento, CA, by the Department of Civil and Environmental Engineering, University of California, Davis, CA, Task Order No. 31, June.
- Eisinger D., Niemeier D., and Dai Z. (2004) Construction emissions: comparison of UC Davis and Sacramento Metropolitan Air Quality Management District modeled emissions, I-80 auxiliary lanes case study. Technical memorandum prepared for the California Department of Transportation Air Quality and Conformity Coordination Environmental Program, Sacramento, CA, by the UC Davis-Caltrans Air Quality Project, University of California, Davis, CA, Task Order No. 8, April.
- Eisinger D.S., Niemeier D., and Witten D. (2004) California's funding crisis and potential ramifications for conformity. Technical memorandum prepared for the California Department of Transportation by UC Davis-Caltrans Air Quality Project, Task Order No. 9, February.
- Chinkin L.R., Tamura T.M., Eisinger D.S., Gorin C.A., Miller D.S., Coe D.L., MacDonald C.P., and Wheeler N.J.M. (2003) Preliminary assessment of ozone and PM air quality issues in Central Ohio. Final report prepared for Mid-Ohio Regional Planning Commission, Columbus, OH, by Sonoma Technology, Inc., Petaluma, CA, STI-902900-2377-FR, June.
- Tamura T.M. and Eisinger D.S. (2003) Transportation-related air toxics: case study materials related to US 95 in Nevada. Revised Final White Paper prepared for the U.S. Federal Highway Administration Office of Natural Environment, Washington, DC, by Sonoma Technology, Inc., Petaluma, CA, STI-902370-2308-RFWP, March.
- Eisinger D.S. and Niemeier D. (2001) California conformity timelines: EMFAC-2000 approval considerations. Report prepared for California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-998360-2077 (UCD-ITS-RR-01-01), May.
- Eisinger D.S., Chang D., Dougherty K., and Kear T. (2000) A carbon monoxide reevaluation: past and future trends and their relationship to conformity hot spot policies. Prepared for California Department of Transportation, Sacramento, CA, by University of California, Davis, Institute of Transportation Studies, Davis, CA, UCD-ITS-RR-00-13 (STI-999120-2043-FR), December.
- Klausmeier R., Walsh P.A., and Eisinger D.S. (2000) Remote sensing certification standards evaluation. Revised final report 1 prepared for California Bureau of Automotive Repair, Sacramento, CA, by de la Torre Klausmeier Consulting, Inc., Austin, TX, P.A. Walsh Consulting, Reno, NV, and Sonoma Technology, Inc., Petaluma, CA, STI-999695-1991-RFR1, December.
- Ryan P.A., Eisinger D.S., and Prouty J.D. (2000) Validation options for station performance measures. Technical memorandum prepared for California Bureau of Automotive Repair, Sacramento CA, by Sonoma Technology, Inc., Petaluma CA, STI-999691-2025-TM, October.
- Ryan P.A., Eisinger D.S., and Prouty J.D. (2000) California Smog Check Fleet. Report prepared for the Bureau of Automotive Repair, Sacramento, CA by Sonoma Technology, Inc., Petaluma, CA, STI-999691-1976-DFR1, May.
- Eisinger D., Kear T., Chang D., Dougherty K., Stallard M., and Johnson M. (1999) Proposed State Route 125 South air emissions and the Sweetwater Reservoir: A review of recent reports sponsored by the Sweetwater Authority. Report prepared for the California Department of Transportation Environmental Program, Sacramento, CA, and University of California Institute of Transportation Studies, Davis, CA, by University of California, Davis/Caltrans Air Quality Project, Davis, CA, UCD-ITS-RR-99-9 (STI-998360-1896-FR), July.

- Eisinger D., Kear T., Niemeier D., Chang D., and Borroum S. (1998) Caltrans air quality program strategic operating plan 1998 - 2002. Prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Santa Rosa, CA, STI 1770, February.
- Garza V., Graney P., Sperling D., Niemeier D., Eisinger D., Kear T., and Chang D. (1997) Transportation project-level carbon monoxide protocol revised. Prepared for Environmental Program California Department of Transportation by the Institute of Transportation Studies, University of California, Davis, UCD-ITS-RR-97-21, December.
- Reiss R., Chinkin L.R., and Eisinger D.S. (1997) A primer on ozone monitoring site selection. Final report prepared for SAIC, Durham, NC and U.S. Environmental Protection Agency, Research Triangle Park, NC, by Sonoma Technology, Inc., Santa Rosa, CA, STI-996330-1712-FR, April.
- Richards L.W., Eisinger D.S., Higgins T., and Pierson W.R. (1997) MAG Brown Cloud Study technical memorandum. Working paper no. 1: background information on urban brown clouds. Report prepared for Maricopa Association of Governments, Phoenix, AZ, by Sonoma Technology, Inc., Santa Rosa, CA, K.T. Analytics, Inc., Oakland, CA, and Desert Research Institute, Reno, NV, STI-996342-1621-TM, February.
- Chinkin L.R., Main H.H., Jones C.M., and Eisinger D.S. (1996) Ozone ambient monitoring network review for Polk County, Iowa. Final report prepared for Polk County Public Works APCD, Des Moines, IA, by Sonoma Technology, Inc., Santa Rosa, CA, STI-996050-1584-FR, June.
- Coe D.L., Eisinger D.S., Chinkin L.R., Heiken J.G., Austin B.S., and Pollack A.K. (1996) Methodology for gathering locality-specific emission inventory data. Final report prepared for U.S. Environmental Protection Agency, Office of Mobile Sources, Ann Arbor, MI, by Sonoma Technology, Inc., Santa Rosa, CA and ENVIRON Corporation, Novato, CA, June.
- Reiss R., Chinkin L.R., Roberts P.T., Main H.H., and Eisinger D.S. (1995) Investigation of monitoring networks for an alternative ozone NAAQS. Work assignment 7-95. Final report prepared for U.S. Environmental Protection Agency, Research Triangle Park, NC, by Sonoma Technology, Inc., Santa Rosa, CA, EPA Contract No. 68D30020, STI-94571-1553-FR, December.
- Austin B.S., Eisinger D.S., Duvall L.L., Shepard S.B., Heiken J.G., Fieber J.L., Higgins T., and Bhatt K. (1991) Transportation control measure analysis procedures. Final report prepared for California Air Resources Board, Sacramento, CA, by Systems Applications International, San Rafael, CA and K.T. Analytics, Inc., Oakland, CA, SYSAPP-91/141, November.
- Dill J., Duvall L., Balestrini S., Eisinger D.S., Fieber J., Reed G., Wood M., LaFlam G., Chu E., Galef B., and Linson C. (1991) Transportation control measure evaluation: Arizona FIP. Report prepared for U.S. Environmental Protection Agency, Region IX, San Francisco, CA, by Systems Applications Inc., San Rafael, CA, Pacific Environmental Services, Herndon, VA, and ICF, Incorporated, Fairfax, VA, SYSAPP-91/020, EPA Contract No. 68-DO-0124, January.
- Dill J., Fieber J., Garelick B., Eisinger D., Linson C., and Katz B. (1991) Conformity planning: Arizona FIP. Final report prepared for U.S. Environmental Protection Agency, Region IX, San Francisco, CA, by Systems Applications International, San Rafael, CA, and ICF, Incorporated, Fairfax, VA, SYSAPP-91/017, EPA Contract No. 68-02-4464, January.
- Heiken J.G., Austin B.S., Eisinger D.S., Shepard S.B., and Duvall L.L. (1991) Estimating travel and emission effects of TCMs. Draft report prepared for U.S. Environmental Protection Agency, Research Triangle Park, NC, by Systems Applications International, San Rafael, CA, SYSAPP-91/117, EPA Contract No. 68-DO-0102 WA 1-67, September.

- Knight R., Akers L., Austin B., Eisinger D.S., Fieber J., Goetz J.K., Chinkin L., and Hamilton W. (1991) Assessment of the emissions impacts of electric vehicles in the South Coast Air Basin. Report prepared for California Air Resources Board, Sacramento, CA; Southern California Edison Company, Rosemead, CA; and Bevilacqua-Knight Associates by Systems Applications Inc., San Rafael, CA, SYSAPP-90/108.
- Smylie M., Chinkin L.R., Eisinger D.S., Goetz J.K., Austin B.S., and Balestrini S.I. (1991) A regulatory analysis of the Clean Air Act amendments of 1990, the California Clean Air Act of 1988, and the South Coast air quality management plan. Report prepared for Shell Oil Company, Houston, TX, by Systems Applications International, San Rafael, CA, April.
- Eisinger D.S., Deakin E.A., Mahoney L.A., Morris R.E., and Ireson R.G. (1990) Transportation control measures: state implementation plan guidance. Revised final report prepared for U.S. Environmental Protection Agency, San Francisco, CA, and Research Triangle Park, NC, by Systems Applications Inc., San Rafael, CA, and University of California, Berkeley, CA, Contract No. 68-02-4393, SYSAPP-90/084, September.
- Ireson R.G., Roberts P.T., Main H.H., Eisinger D.S., Garelick B., and Chinkin L.R. (1989) Scoping study to develop an air quality management plan for San Luis Obispo County. Report prepared for the San Luis Obispo County Air Pollution Control District, San Luis Obispo, CA, by Systems Applications, Inc., San Rafael, CA, SAI Report No. SYSAPP-89/130, October.
- Eisinger D.S. and Austin B.S. (1988) Health and welfare effects plans of attack and analyses for exposure to radon and nonradon indoor air pollutants. Series of eight reports prepared for U.S. Environmental Protection Agency, Regions III and X, and State of Pennsylvania's Department of Environmental Resources by Systems Applications Inc., San Rafael, CA.
- Eisinger D.S., Austin B.S., and Mudarri D. (1988) Application of air quality health standards to indoor settings. Report prepared for U.S. Environmental Protection Agency by Systems Applications Inc., San Rafael, CA.
- Eisinger D.S., Burton C.S., and Chinkin L.R. (1988) A concept paper to analyze the air quality effects of increased electric vehicle use. Report prepared for Electric Power Research Institute, Palo Alto, CA, by Systems Applications Inc., San Rafael, CA.
- Ireson R.G., Eisinger D.S., Chinkin L.R., Souten D.R., and Roberts P.T. (1988) Evaluation of needs and options for improving ozone air quality planning capabilities for the Sacramento Metropolitan Area. Report prepared for Sacramento County Air Pollution Control District, Sacramento, CA, by Systems Applications Inc., San Rafael, CA, and Sonoma Technology, Inc., Santa Rosa, CA, SYSAPP-88/047, March.
- Ireson R.B., Roberts P.T., Roth P.M., Chinkin L.R., Blumenthal D.L., Eisinger D.S., Gardner L., Haney J.L., Mahoney L.A., and Yocke M.A. (1988) Scoping study for data collection and urban airshed model performance evaluation in the San Diego air basin, volume I: summary and recommendations; volume II: technical assessment. Reports prepared for the San Diego County Air Pollution Control District, San Diego, CA, by Systems Applications, Inc., San Rafael, CA, SAI-SYSAPP-88/127a,b, December.
- Austin B.S., Eisinger D.S., and Weir B.R. (1987) Air quality health standards and guidelines: review and analysis of their application to indoor air quality problems. Report prepared for U.S. Environmental Protection Agency by Systems Applications Inc., San Rafael, CA.
- Eisinger D.S. (1987) Indoor air quality program development plans: assessment of mitigation strategies. Report prepared for U.S. Environmental Protection Agency, Research Triangle Park, NC, by Systems Applications Inc., San Rafael, CA.

- Eisinger D.S. and Austin B.S. (1987) Indoor air quality: problem characterization and computer simulation of indoor scenarios and mitigation strategies. Report prepared for U.S. Environmental Protection Agency, Research Triangle Park, NC, by Systems Applications Inc., San Rafael, CA.
- Eisinger D.S. (1986) Emissions trading: reducing acid rain control costs in Massachusetts. Report prepared for Massachusetts Department of Environmental Quality Engineering and Electric Power Research Institute, Palo Alto, CA.
- Eisinger D.S. (1986) Generation to transmission: in the future, utilities should concentrate on moving, rather than making, electricity. Report prepared for Southern California Edison Company, Rosemead, CA.
- Eisinger D.S., Berry M., Rattray G., and Zech M. (1985) Goals, strategies and political pragmatism: a work plan for the Lighthouse Preservation Society. Report prepared for the Lighthouse Preservation Society, Rockport, MA.
- Eisinger D.S., Kite-Powell H., and Scott S. (1985) Oil spill management along the Maine Coast. Report prepared for Massachusetts Institute of Technology Ocean Engineering Department and Maine Department of Environmental Protection.

Legal and Litigation Support

- Expert witness litigation support on behalf of the United States government for transportation-air quality issues (2018–2019).
- Air quality analysis peer-review for legal team assisting a smart growth and affordable housing project in southern California (2016).
- Expert witness litigation support on behalf of the State of California for near-road pollution issues (2006–2007).

Software and Software Documentation

- Erdakos G., Bai S., and Eisinger D. (2019) CAL-CET2018, version 1.2. Modeling tool prepared for the California Department of Transportation, Sacramento, CA by Sonoma Technology, Inc., Petaluma, CA. CTAQ-RT-19-368.04.09. April 16.
- Bai S., Du Y., West J., Parajon G., Churchman L., Eisinger D.S., and Reid S. (2017) DataBridge, version 2.0. Modeling tool prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA. CTAQ-RT-17-317.11.05. May 3.
- Erdakos G., Bai S., Eisinger D., Parajon G., Churchman L., and Craig K. (2017) DVTool, version 3.0. Modeling tool prepared for the California Department of Transportation, Sacramento, CA by Sonoma Technology, Inc., Petaluma, CA. CTAQ-RT-17-317.11.08. April 28.
- Erdakos G., Bai S., Eisinger D., Parajon G., Churchman L., Du Y., and Craig K. (2017) DVTool user guide (version 3.0). User's guide prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-RT-17-317.11.09, STI-914111-6698-UG, April.
- Du Y., Bai S., and Eisinger D. (2017) Ethylbenzene emissions calculator. Prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-RT-17-317.11.10, STI-914111-6662-UG, April.

- Bai S., Du Y., Reid S., and Eisinger D. (2015) CT-EMFAC2014 user's guide. User's guide for CT-EMFAC2014 v6.0 prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, Caltrans CTAQ-RT-15-317.04.05, November.
- Erdakos G., Parajón G., Bai S., Eisinger D.S., Craig K., and Du Y. (2015) DVTool (version 2.0). A tool to calculate particulate matter (PM) design values (DVs) for comparison to National Ambient Air Quality Standards (NAAQS). Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-914102, February.
- Bai S., Prouty J.D., Eisinger D.S., Du Y., and Gray E. (2013) CT-EMFAC (version 5.0). Based on an emissions modeling tool originally developed by P. Wu, S. Bai, D. Eisinger, and D. Niemeier, UC Davis-Caltrans Air Quality Project. Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-909118, April.
- Erdakos G., Prouty J.D., Pasch A., Bai S., Eisinger D.S., Craig K., and Du Y. (2013) DVTool (version 1.1). A tool to calculate particulate matter (PM) design values (DVs) for comparison to National Ambient Air Quality Standards (NAAQS). Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-909116, September.
- Bai S., Prouty J.D., and Eisinger D.S. (2013) GHG Assessment Tool. Travel Activity and Fuel-Based Methods for Estimating Project-Level CO₂ Emissions (beta version 1.0). Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-909102, September.
- Bai S., Prouty J.D., and Eisinger D.S. (2013) CT-LEV-III Tool. Using LEV-III Adjustment Factors in Project Emissions Modeling. Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-909119, September.
- Bai S., Eisinger D.S., Du Y., Prouty J.D., and Gray E.A. (2013) CT-EMFAC user's guide. User's guide for CT-EMFAC v5.0 prepared for the California Department of Transportation, Division of Environmental Analysis, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, CTAQ-OT-13-270.18.1; STI-909118-5621-UG, April 30.
- Benson P., Bai S., Prouty J.D., and Eisinger D.S. (2012) Construction Emissions Tool – Input Estimator (CET-IE) (alpha version 0.2). Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-909115, April.
- Bai S., Prouty J.D., Eisinger D.S., Stille J.C., Dai S., and Niemeier D. (2012) CAL-CET construction emissions spreadsheet tool (beta version 2.1). Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-909115, November.
- Prouty J.D., Bai S., Eisinger D.S., Benson P. (2011) CL4 – a graphical user interface for CALINE4, version 2.1. Prepared for the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, October.
- Prouty J.D., Bai S., and Eisinger D.S. (2011) DataBridge: Preparing input data files for the CT-EMFAC modeling tool (beta version 1.0.2). Prepared for the Division of Environmental Analysis, California Department of Transportation, Sacramento, CA, STI-909114, March.
- Bai S., Amador J., Eisinger D., Reid S., Waters M., Black T., Phillips J., and Jennings C. (2011) Low-carb land beta version 4.0, a web-based modeling tool to evaluate how changes in land use and future growth affect travel activity and CO₂ emissions. Prepared by Sonoma Technology, Inc., in collaboration with the Washington State Department of Transportation, the Thurston Regional Planning Council, and the

Washington State Department of Commerce. Available on the Internet at www.sonomatech.com/project.cfm?uprojectid=672. STI-4052, January.

- Bai S., Prouty J.D., and Eisinger D.S. (2010) Spreadsheet tool for estimating naphthalene and polycyclic organic matter emissions from transportation projects (beta version 1.0). Prepared for California Department of Transportation, Division of Environmental Analysis, Office of Hazardous Waste, Air, and Noise, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909101-3970, June.
- Bai S., Prouty J.D., and Eisinger D.S. (2010) CT-EMFAC: a batch mode version of the UC Davis CT-EMFAC tool. Prepared for the California Department of Transportation Division of Transportation Planning by Sonoma Technology, Inc., Petaluma, CA. March.
- Bai S., Amador J., Eisinger D.S., Reid S., Waters M., Black T., Phillips J. (2010) TESTER (Beta Version 3.0): The Emissions Sensitivity Tool to Evaluate CO₂ Reductions. Prepared for the U.S. Federal Highway Administration. Prepared by Sonoma Technology, Inc., the Washington State Department of Transportation, the Thurston Regional Planning Council, and the Washington State Department of Commerce. March 31.
- Wang R., Eisinger D.S., Bai S., and Niemeier D. (2008) Construction equipment retrofit and replacement tool. Prepared by the U.C. Davis-Caltrans Air Quality Project, Task Order No. 81.
- Wu P., Bai S., Eisinger D., and Niemeier D. (2008) CT-EMFAC version 2.6. Transportation project-level emissions analysis tool prepared for the Division of Transportation Planning, California Department of Transportation, Sacramento, CA, by the University of California at Davis, May.
- Bai S., Eisinger D., and Niemeier D. (2006) Project-level mobile source air toxics analysis. Spreadsheet tool prepared for the California Department of Transportation, Sacramento, CA, by the University of California, Davis-Caltrans Air Quality Project, Davis, CA, October.
- Van Houtte J., Eisinger D., and Niemeier D. (2006) Rural Area Conformity Guidance: Completing 8-hour Ozone Project Assessments spreadsheet tool, version 1.01. Prepared for the California Department of Transportation, Sacramento, CA, August.
- Gutlugil M., Eisinger D., and Niemeier D. (2005) U.C. Davis CMAQ funding apportionment model, version 5.1. Prepared for the Environment Program, California Department of Transportation, Sacramento, CA, May.
- Eisinger D.S. (2004) I/M-Design: a spreadsheet-based modeling tool to help policy makers analyze motor vehicle inspection and maintenance (I/M) programs, version 4.0. Software documentation: Evaluating inspection and maintenance (I/M) programs: A policy-making framework. *J. Air & Waste Manag. Assoc.* 55, 147-162.
- Dai Z., Eisinger D.S., and Niemeier D. (2004) U.C. Davis construction emissions estimation model, version 3.2. Prepared for the California Department of Transportation, Environment Program, Sacramento, CA, March.
- Prouty J.D., Ryan P.A., and Eisinger D.S. (2001) I/M Station Performance Measures modeling tool (SPM+), version 1.12. Prepared for the California Bureau of Automotive Repair, Sacramento, CA, March.
- Ryan P.A., Prouty J.D., and Eisinger D.S. (2000) California Smog Check Cost-Benefit Calculator, version 2.04. Prepared for the California Bureau of Automotive Repair, Sacramento, CA, October.
- Prouty J.D., Eisinger D.S., and Ryan P.A. (2000) Smog Check Tests And Fleet Emissions Calculator, version 1.05. Prepared for the California Bureau of Automotive Repair, Sacramento, CA, June.
- Prouty J.D., Eisinger D.S., and Ryan P.A. (2000) Travel Fraction Calculator, California vehicle fleet spreadsheet-based modeling tool, version 2.10. Prepared for the California Bureau of Automotive Repair, Sacramento,

CA, June. Software documentation: Travel Fraction Calculator (TFC) User's Guide Version 2.10. Draft Final Report prepared for Bureau of Automotive Repair, Sacramento CA by Sonoma Technology, Inc., Petaluma CA, STI-999692-1993-DFR1, November.

Ryan P.A., Eisinger D.S., and Prouty J.D. (2000) Travel Fraction Calculator (TFC) User's Guide Version 2.10. Draft Final Report prepared for Bureau of Automotive Repair, Sacramento CA, by Sonoma Technology, Inc., Petaluma CA, STI-999692-1993-DFR1, November.

Prouty J.D., Ryan P.A., and Eisinger D.S. (2000) Gross polluter certification spreadsheet modeling tool, version 1.61. Prepared for the California Bureau of Automotive Repair, Sacramento, CA, April.

Prouty J.D., Kear T.P. Chang D., and Eisinger D.S. (1999) CL4: A user-friendly interface for the CALINE 4 model, version 1.32. Prepared for the California Department of Transportation, Environment Program, Sacramento, CA, April.

Coe D.L., Eisinger D.S., Prouty J.D., and Kear T. (1998) User's guide for CL4: a user-friendly interface for the CALINE4 model for transportation project impact assessment. User's guide prepared for Caltrans - U.C. Davis Air Quality Project, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-997480-1814-UG, June.

Courses Taught

Atmospheric Pollution. Geography 404, Course Reference Number: 92184, University of Hawaii. 1998 through 2016. Three credit hours.

Reid S.B. and Eisinger D.S., and Bai S. (2015) Introduction to transportation air quality basics. One-day workshop presented to the California Department of Transportation, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-914103-6368, February 19, October 13.

Bai S., Pasch A., and Eisinger D. (2013) Transportation project-level emissions and hot-spot assessment: two-day hands-on workshop. Training course presented to the California Department of Transportation District 4, Oakland, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909104-5642, September 10-11.

Bai S. and Eisinger D. (2013) Introducing CT-EMFAC v5.0. Training course presented to California Department of Transportation, April 30, by Sonoma Technology, Inc., Petaluma, CA. STI-909118-5640.

Bai S., Pasch A.N., and Eisinger D.S. (2013) Transportation project-level emissions and hot-spot assessment: two-day hands-on workshop. Training course presented to the California Department of Transportation District 11, San Diego, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909104-5475, February 12-13.

Eisinger D.S., Bai S., and Pasch A.N. (2012) Introduction to transportation air quality issues. One-day workshop presented to the California Department of Transportation District 4, Oakland, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909104-5326, April 18.

Bai S., Pasch A., and Eisinger D. (2012) Transportation project-level emissions and hot-spot assessment: two-day hands-on workshop for project analysts. Training course presented to the California Department of Transportation District 8, San Bernadino, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909104-4369, March 6-7.

Bai S., Pasch A., and Eisinger, D. (2011) Advanced air quality impact assessment for transportation projects. One-day hands-on workshop presented to the California Department of Transportation District 7, Los Angeles, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909104-4130, May 25.

- Eisinger D., Bai S., and Pasch A. (2011) Introduction to transportation air quality issues. One-day workshop presented to the California Department of Transportation District 6, Fresno, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909104-4065, February 9.
- Eisinger D., Bai S., and Pasch, A. (2010) Introduction to transportation air quality issues. One-day workshop presented to the California Department of Transportation headquarters, Sacramento, CA, by Sonoma Technology, Inc., Petaluma, CA, STI-909104-4009, November 9.
- Bai S., Eisinger D., and Niemeier D. (2007) Project-level air toxics: emissions modeling procedures using EMFAC and U.C. Davis spreadsheet application. Training course presented at the FHWA MSAT Training Workshops, San Diego and Sacramento, CA, by Caltrans and the U.C. Davis-Caltrans Air Quality Project, January 8-9.
- Kear T., Eisinger D.S., and Gao O. (2003) Advanced project-level air quality analysis. Training course presented at Caltrans District 11, San Diego, CA, by Caltrans and the U.C. Davis Air Quality Project, GEV126, March 12-13.
- Kear T., Eisinger D.S., and Gao O. (2003) Project-level air quality analysis overview. Training course presented at Caltrans District 11, San Diego, CA, by Caltrans and the U.C. Davis Air Quality Project, GEV125, March 11.
- Leeman W., Kear T., and Eisinger D.S. (2002) Advanced project-level air quality analysis. Training course presented at the Caltrans DES Training Facility, Sacramento, CA, by Caltrans and the U.C. Davis Air Quality Project, GEV126, October 2-3.
- Leeman W., Kear T., and Eisinger D.S. (2002) Project-level air quality analysis overview. Training course presented at the Caltrans Maintenance Training Center, Woodland, CA, by Caltrans and the U.C. Davis Air Quality Project, GEV125, October 1.
- Transportation Policy. Engineering, Civil and Environmental (ECI) 165, CRN: 70565. University of California, Davis. 1999. Three credit hours. (Co-taught portions of the same course in 2001.)

Peer-Review Services

- Atmospheric Environment (2007).
- Cambridge University Press (2018)
- County Health Rankings & Roadmaps Program*, a collaboration between the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation; Content Expert Reviewer for "What Works for Health" online resource (2015).
- Environmental Science & Technology (2003, 2011).
- International Journal of Environment and Pollution (2007).
- Journal of the Air & Waste Management Association (2003, 2009).
- Journal of Policy History (2012).
- National Research Council, Transportation Research Board (TRB), annual conference papers sponsored by Committee on Transportation and Air Quality (A1F03 and ADC20) (1995-present).
- Southwest Climate Assessment Report, for the 2013 National Climate Assessment, U.S. Global Change Research Program (USGCRP) (2011).
- Transportation Letters: the International Journal of Transportation Research (2016).

Committee and Workshop Advisory Service

Chair, National Academies, U.S. Transportation Research Board, Transportation and Air Quality Committee, ADC20 (2017-2020). *Chair*, Regional Air Quality Subcommittee (2011-2016). *Committee Member*, Air Quality Committee (2005-2020).

Committee member, California Statewide Transportation Conformity Working Group (1997-2017).

Invited member, Health Effects Institute Expert Review Panel for RFA-13-1, *Improving assessment of Near-Road Exposure to Traffic Related Pollution*, Boston, May 22–23, 2013.

Invited Presiding Officer, Session 530, "Incorporating Greenhouse Gas Considerations into Transportation Project and Metropolitan Planning Requirements." Transportation Research Board's 88th Annual Meeting. Washington, D.C. (January 11-15, 2009).

Reid S.B. and Eisinger D.S. Coordinator of the November goods movement issue. (2007) *Air & Waste Manag. Assoc.'s EM*.

Invited participant, Colloquy on the Coming Transformation of Travel, sponsored by the New York State Association of Metropolitan Planning Organizations (NYSMPOs), the Federal Highway Administration's Office of Planning, and the U.S. Department of Transportation's Volpe National Transportation Systems Center. Rensselaerville Institute Conference Center, Albany, New York (June 1-3, 2005).

Subcommittee member, Air Quality Subcommittee, Transportation Research Board Committee on Transportation Planning Needs and Requirements of Small and Medium-Sized Communities (A1D05) (2003-2005).

Committee member, California EPA Children's Environmental Health Center Workgroup to Implement the Governor's Environmental Action Plan, "Improving Air Quality Along Freeways" (2004).

Invited participant, U.S. FHWA-sponsored Accelerated Construction Technology Transfer Workshop, I-35W & HWY62, Crosstown Commons Reconstruction. Minneapolis, Minnesota (June 14-16, 2004).

Invited participant, U.S. FHWA-sponsored workshop, Transportation-related Air Toxics. Chicago, Illinois (May 12, 2003).

Committee member, Air & Waste Management Association, Transportation & Air Quality Reference Publication Task Group (2003).

Mobile Sources Committee member, U.S. EPA Emission Inventory Improvement Program (2000-2002).

Steering Committee member, UCLA's Lake Arrowhead Land Use/Transportation/Air Quality Conference (1993-1995).

Advisory Committee member, California Local Government Commission land use planning conference (1994).

Vice-Chair, Air & Waste Management Association Transportation Control Measures committee (1990-1991).

Dissertation

Eisinger D. (2005) Motor vehicles, air pollution control, and environmental policy making. PhD Dissertation, Environmental Impact Assessment Unit, Institute of Biological Sciences (Professor Peter Wathern, PhD Supervisor), University of Wales, Aberystwyth.