

Elected, Member-at-large, AAAS Section on Engineering, 2007-2012

PATENTS

A Microfabricated Ionizer Structure Based on Unipolar Corona Discharge, (*US Pat. 11036648, Tien, Chua, Niemeier, Wexler*)

DISSEMINATION OF RESEARCH, PUBLIC POLICY

Development of the CO Protocol contained in Transportation Conformity Regulations (April 2012), U.S. EPA EPA-420-B-12-013 (<http://www.epa.gov/otaq/stateresources/transconf/regs/420b12013.pdf>)

Development of the PM hot-spot analysis, Code of Federal Regulations, §93.123 Procedures for determining localized CO, PM10, and PM2.5 concentrations (hot-spot analysis), 2015

DISSEMINATION OF RESEARCH

A. JOURNAL PUBLICATIONS (^G Graduate Student/PostDoc)

1. Niemeier, D. (*in review*) Understanding group formation using network analysis in engineering capstone design classes, submission to *American Educational Research Journal*
2. Rouhani, O., Madani K, A. Mazyaki, M. Arhami, A. Ardalan, D. Niemeier, and M. Ezzati (*under review*) Sustainable development and health, *invited by Lancet*
3. Niemeier, D., L. Glover (*in review*) From capstone to touchstone: rhetoric and the art of engineering, submission to *Community Literacy Journal*
4. Rowangould, D. ^G, D. Niemeier (*under review*) Smart Growth Policy and Practice: A Retrospective Examination of Residential Development in the Sacramento Region, *Journal of the American Planning Association*
5. Palm, M. ^G D. Niemeier (*accepted*) The Effectiveness of Regional Housing Policy Reliant on Federal and Local Funding Sources: Evidence from the San Francisco Bay Area, *Journal of the American Planning Association*
6. Beamish, T., R. Grattet, D. Niemeier (*forthcoming*) Climate Change and Governance: Land Use and Transportation Law and Policy in California, *The Post-Carbon World: Advances in Legal and Social Theory, Brooklyn Law Review*
7. Rouhani, O., D. Niemeier, H.O. Gao & G. Bel (2016) “[Cost Benefit Analysis of Various California Renewable Portfolio Standard Targets: Is a 33% RPS Optimal?](#)”, *Renewable & Sustainable Energy Reviews*, 62, 1122-1132
8. Dailey, N., D. Niemeier, C. Elkhoraibi, C. Gabriel Senties-Cué, M. Pitesky, (*forthcoming*) Microbiology and Built Environment: *Salmonella* surveillance of pastured poultry layer farms in California *Poultry Science*, doi:10.3382/ps/pew360
9. Pitesky, M., D. Niemeier, R. Blatchford, R. Gallardo (2016) Back to the Future: Backyard Chickens and “Micro-Commercial” Poultry Production in California, *The Californian Veterinary*, California Vet Med Association
10. Gaffron, P. and D. Niemeier (2015) School Locations and Traffic Emissions — Environmental (In)Justice Findings Using a New Screening Method, [Int. J. Environ. Res. Public Health](#), 12(2), 2009-2025
11. Niemeier, D., R. Grattet, T. Beamish (2015) Blueprinting for Climate Change? When Promise of Regional Transportation and Land Use Planning Outruns Performance Outcomes, *Environment & Planning C: Government & Policy*, v33:6: 1600-1617
12. Fackler, A. ^G Niemeier (2014) Modern Transportation Funding and User Pays Principle: Are drivers paying for what they get and getting what they paid for? *Transportation Research Record*, V2450, DOI: 10.3141/2450-01
13. Rouhani, O. ^G, D. Niemeier (2014) Flat versus Spatially Variable Tolling: A Case Study in Fresno, California, *Journal of Transport Geography*, 37:10-18.
14. Niemeier, D., H. Gombachika, R. Richards-Kortum, (2014) How to transform the practice of engineering to meet global health needs, *Science*, V345(6202):1287-1290.
15. Rouhani, O. ^G, Knittel, C., D. Niemeier (2014) Road supply in central London: Addition of an ignored social costs, *Journal of Transportation Research Forum*, 53(1):49-64.
16. Rouhani, O., ^G D. Niemeier (2014) Resolving the property rights of transportation emissions through public-private partnerships, *Journal of the Transportation Research, Part D*, 31:48-60.

17. Karner A., D. Niemeier (2013) Civil Rights Guidance and Equity Analysis Methods for Regional Transportation Plans: A Critical Review of Literature and Practice, *Journal of Transport Geography*,33:126-134
18. 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).
19. London, J., Karner, A., D. Rowan, D. Niemeier, J. Sze, G. Gambirazzio (2013) Racing Climate Change: Collaboration and Conflict in California's Global Climate Change Policy Arena, *Global Environmental Change*, 23(4):791-799
20. Rouhani, O.,^G Niemeier, D. Knittel, C. and K. Madani (2013) *Integrated modeling framework for leasing urban roads: A case study of Fresno, CA, Transportation Research, Part B*, 48:17-30.
21. Karner, A.^G, Urrutia, A.,^G D. Niemeier (2012) US Public Transit Fantasies: Performance and Economic Stimulus, *International Journal of Transport Economics*(39)1: 39-56
22. Niemeier, D., Bai, S.,^G and S. Handy (2011) The impact of residential growth patterns on vehicle travel and pollutant emissions, *The Journal of Transport and Land Use*, 4(3): 65-80
23. Gould, G.,^G D. Niemeier (2011) Spatial assignment of emissions using a new locomotive emissions model, *Environmental Science and Technology*, 45: 5846-5852
24. Heres Del Valle,^G D. Niemeier (2011) CO₂ emissions: Are land-use changes enough for California to reduce VMT? Specification of a two-part model with instrumental variables, *Transportation Research, Part B* (<http://dx.doi.org/10.1016/j.trb.2010.04.001>), 45: 150-161, 2011.
25. Lee, A.^G, D. Niemeier (2011) Environmental Justice and Transportation, *Transport Dictionary*, Button and Nijkamp (eds), Pergamon
26. Gao, O.^G, D. Niemeier (2011) Mobile Emissions, *Transport Dictionary*, Button and Nijkamp (eds), Pergamon
27. Malyshkina, N., D. Niemeier (2010) Future Sustainability Forecasting by Exchange Markets: Basic Theory and an Application, *Environmental Science and Technology*, 44: 9134-9142
28. Rowan^G, D. Karner^G, A., D. Niemeier (2010) Mile per gallon illusions and CAFÉ distortions: When even the transport experts have trouble, *Journal of the Transportation Research Record*, No. 2191:8-15
29. Karner, A^G., Eisinger, D., D. Niemeier (2010) Near roadway air quality: Synthesizing the findings from real-world data, *Environmental Science and Technology*, 44(10):5334-5344
30. Torres, R., V. Nelson, J. Momsen & D. Niemeier (2010) Experiment or Transition? Revisiting Food Distribution in Cuban Agromercados from the “Special Period”, *Journal of Latin American Geography*, 9:1-12.
31. Hixson^G, M., A. Mahmud, J. Hu, S. Bai, D. Niemeier, S.L. Handy, S. Gao, J. Lund, D. Sullivan, M. Kleeman (2009) Influence of development policies and clean technology adoption on future air pollution exposure, *Atmospheric Environment* 37 (36): 5047-5068.
32. Timoshek^G, A., D. Niemeier (2009) Mobile Source Air Toxic Emissions: Sensitivity to Traffic Volume, Fleet Composition, and Average Speed , *Journal of the Transportation Research Record*, 2158:77-85
33. Silvis^G, J., Niemeier, D. (2009) Social networks and dwelling characteristics that influence ridesharing behavior of seniors, *Journal of the Transportation Research Record*, 2118:47-54
34. Rowan, D.^G, Niemeier, D. (2009) From kiosks to megastores: The evolving carbon market, *California Agriculture*, 63(2):96–103.
35. Gould, G^G., Niemeier, D. (2009) Review of Regional Locomotive Emission Modeling and the Constraints Posed by Activity Data, *Journal of the Transportation Research Record*, 2117:24-32.
36. Chen, H.^G, Bai, S., Eisinger, D., Niemeier, D., Claggett, M. (2009), Predicting Near-Road PM_{2.5} Concentrations: Comparative Assessment of CALINE4, CAL3QHC, and AERMOD, *Journal of the Transportation Research Record*, 2123:26-37.
37. Sze J., Gambirazzio G^G., Karner A^G., Rowan D.^G, London J., Niemeier D. (2009). “Best in Show?: Climate and Environmental Justice Policy in California. *Environmental Justice* 2(4):179-184.
38. Karner^G, A., Eisinger, D., Bai, S., D. Niemeier (2009) Mitigating diesel truck impacts in environmental justice communities, *Journal of the Transportation Research Record*, 2125:1-8.

39. Van Houtte, J., D. Niemeier (2008) A critical review of the effectiveness of I/M programs for monitoring PM emissions from heavy duty vehicles, *Environmental Science and Technology*, 42(21): 7856-7865
40. D.Niemeier, Gregory Gould^G, Alex Karner^G, Mark Hixson^G, Brooke Bachmann^G, Carrie Okma^G, Ziv Lang^G, David Heres Del Valle^G (2008) Rethinking downstream regulation: California's opportunity to engage households in reducing greenhouse gases, *Energy Policy*, 38: 3436-3447
41. Beelee Chua; Wexler, A.S.; Tien, N.C.; Niemeier, D.A.; Holmen, B.A. (2008) Electrical Mobility Separation of Airborne Particles Using Integrated Microfabricated Corona Ionizer and Separator Electrodes, *Journal of Microelectromechanical Systems*, 18(1):4-13
42. Gao^G, H.O. and D.A. Niemeier (2008) Using functional data analysis of diurnal ozone and NOx cycles to inform transportation emissions control, *Transportation Research Part D*, 13(4): p. 221-238
43. Lin, Chen^G, Niemeier (2008) An Analysis on Long-Term Emission Benefits of a Government Vehicle Fleet Replacement Plan in Northern Illinois, *Transportation*, 35(2): 1572-9435
44. Chua, B., Wexler, A.S., Tien, N.C., Niemeier, D.A., Holmen, B.A.(2008) Design, Fabrication, and Testing of a Microfabricated Corona Ionizer, *Journal of Microelectromechanical Systems*, 17(1):115 – 123
45. Kear, T. D. Eisenger, Niemeier, D. Brady, M. (2008) US vehicle emissions: Creating a common currency to avoid model comparison problems, *Transportation Research Part D*, 13(3): p. 168-176
46. ^GHendren, P., D. Niemeier (2008) Identifying Peer States for Transportation System and Policy Analysis, *Transportation*, 35:445-465
47. Niemeier, D. and Mannering, F. (2007) Bridging research and practice: A synthesis of best practices in travel demand modeling, *Special Issue (eds), Transportation Research, Part A*, 41: 365-366
48. ^GShafizadeh, K., D. A. Niemeier, P. L. Mokhtarian, I. Salomon (2007) The Costs and Benefits of Home-Based Telecommuting: A Monte Carlo Simulation Model Incorporating Telecommuter, Employer, and Public Sector Perspectives, *Journal of Infrastructure Systems ASCE*, 13(1):12-25
49. ^GBai, S., Y.C. Chiu, and D.A. Niemeier (2007) A comparative analysis of using trip-based versus link-based traffic data for regional mobile source emissions estimation, *Atmospheric Environment*, 41(35): p. 7512-7523
50. Montañez, I., Tabor, N., D. Niemeier, W.A. DiMichele, T.D. Frank, C.R. Fielding, J.L. Isbell, L. P. Birgenheier, and M. C. Rygel (2007) CO₂-Forced Climate and Vegetation Instability During Late Paleozoic Deglaciation, *Science*, 315: 87-91
51. ^GGao, O., D. Niemeier (2007) The impact of rush hour traffic and mix on the ozone weekend effect in southern California, *Transportation Research, Part D*, 12: 83-98
52. ^GBai, S., ^GNie, Y., D. Niemeier (2007) The impact of speed post-processing methods on regional mobile emissions estimation, *Transportation Research, Part D*, 12: 307-324
53. ^GYura, E.A., T. Kear, and D. Niemeier (2007) Using CALINE dispersion to assess vehicular PM 2.5 emissions, *Atmospheric Environment*, 41(38): p. 8747-8757
54. ^GChoo, S., K. Shafizadeh, K., D. Niemeier (2007) The development of a prescreening model to identify failed and gross polluting vehicles, *Transportation Research, Part D*, 12: 208-218
55. Eisinger, D., D. Niemeier, T. Stoeckenius, T. Kear, M. Brady, A. Pollack, J. Long (2006) Collecting driving data to support mobile source emissions estimation, *ASCE Transport.Engineering*, 132(11):845-854
56. Gkritza, K., D. Niemeier, F. Mannering (2006) Airport Security Screening and Changing Passenger Satisfaction: An Exploratory Assessment, *Journal of Air Transport Management*, 12(5):213-219
57. Kear, T., D. Niemeier (2006), On-Road Heavy-Duty Diesel Particulate Mass Emissions Modeled Using Chassis Dynamometer Data, *Environ. Sci. Technol.* 40:7828-7833
58. ^GHendren, P., D. Niemeier (2006) Evaluating the effectiveness of state department of transportation investment decisions: linking performance measures to resource allocation, *Journal of Infrastructure Systems ASCE*, 12(4): 216-229
59. ^GKhorashadi, A., D. Niemeier, V. Shankar, F. Mannering (2005) Differences in rural and urban driver-injury severities in accidents involving large-trucks, *Journal of Accident Analysis and Prevention*, 37(5): 910-921
60. ^GKear, T, D. Niemeier (2005) Assessing air quality progress using on-road emissions inventories updates, *Environmental Science and Technology*, 39(22), pp. 8571-8577
61. ^GT. Limanond, D. Niemeier, P. Mokhtarian (2005) Specification of a tour-based shopping model for well-mixed neighborhoods, *Transportation* 32(2): 545-571

62. ^GZhang, M.K., A.S. Wexler, D.A. Niemeier, Y.F. Zhu, W.C. Hinds, C. Sioutas (2005) Evolution of particle Number Distributions Near Roadways, Part III: Traffic Analysis and On-road Size Resolved Particulate Emission Factors, *Atmospheric Environment*, 39:4155-4166
63. D. Niemeier, V. Smith (2005), Building Careers, Transforming Institutions: Underrepresented Women and Minorities, Leadership Opportunities, and Inter-institutional Networking, *Journal of Women and Minorities in Science and Engineering*, Vol 11(2)
64. ^GLam, T., D. Niemeier (2005) An exploratory study of the impact of common land use policies on air quality, *Transportation Research Part D*, 10:365-383
65. ^GGao, O., B. Holmén, D. Niemeier (2005) Nonparametric Factorial Analysis of Daily Weigh-in-Motion Traffic: Implications for the Ozone Weekend Effect in Southern California, *Atmospheric Environment*, 39:1662-1689
66. Chen, C. and D. Niemeier (2005) A mass point vehicle scrappage model, *Transportation Research Part B*, 39: 401-415.
67. Niemeier, D. (2004) Book Review: Statistical and Econometric Methods for Transportation Data Analysis, *Journal of Transportation Statistics*, 7(2):4
68. D. Niemeier and Y. Zheng^G (2004) Improving the spatial distribution of vehicle emissions inventories using finer grid cell resolution, *Environmental Science and Technology*, 38(7): 2133-2141
69. B.L. Chua, Z. Li, D.T. McCormick, W.P. Shih, N.C. Tien, A.S. Wexler, D.A. Niemeier, B. Holmen (2004) A Unipolar Corona Discharge Microfabricated Ionizer Structure for Gases at Atmospheric Pressure and Composition, Technical Digest of 17th IEEE International Conference on Micro Electromechanical Systems, Maastricht, Netherlands, Jan: pp 261-264 (Acceptance Rate 34%)
70. Eisinger, D., D. Niemeier (2004) Transportation Control Measures (TCMs): Federal requirements and SIP development considerations, *Transportation Research Record No. 1880*, TRB, National Research Council, Washington DC: 59-70
71. ^GZheng, Y., ^GWang, B., H.M. Zhang, D. Niemeier (2004) A new gridding method for zonal travel activity and emissions using bicubic spline interpolation, *Transportation Research Part B*, 38: 751-766.
72. ^GMorey, J., Niemeier, D. ^GT. Limanond (2004) Statistical framework using GIS to unpaved road VMT for PM10 mobile emissions inventories, *ASCE Journal of Urban Planning and Development*, 130(23): 83-93
73. ^GT. Limanond, D. Niemeier (2004) Effects of land use on decisions of shopping tour generation: A case study of three traditional neighborhoods in WA, *Transportation*, 31(2): 153-181.
74. D. Niemeier, C. Gonzalez (2004) Breaking into the Guild Masters Club: Women Department Chairs in the AAU's, *National Women's Studies Association Journal*, 16(1): 157-171
75. D. Niemeier (2003) The impact of incorporating spatial and temporal variability on running stabilized mobile emission inventories, *Atmospheric Environment*, 37(2): 27-37
76. ^GT. Held, D. Chang, D. Niemeier (2003) UCD 2001: an improve model to simulate pollutant dispersion from roadways, *Atmospheric Environment* 37: 5325-5336.
77. ^GKear, T., D. Niemeier (2003) Sensitivity of Composite Exhaust Emissions Rates to Vehicle Population and Mileage Accrual Assumptions, *Transportation Research Record 1842*, Transportation Research Board, Washington DC: 73-82
78. ^GLin, J. and D. Niemeier (2003) Estimating Regional Air Quality Vehicle Emission Inventories: Constructing Robust Driving Cycles, *Transportation Science*, 37(3): 330-346
79. D. Niemeier, ^GY. Zheng, ^GT. Kear (2003) UCDrive: A new gridded mobile source emission inventory model, *Atmospheric Environment*, 38(2): 305-319.
80. ^GLin, J., D. Niemeier, Developing regional driving cycles using regional driving characteristics, *Transportation Research D*, 8: 361-381.
81. ^GForesman, E.L., Kleeman, ^GM.J., Kear, T.P., D. Niemeier (2003) PM10 Transportation Conformity Determinations: The Equivalent Emissions Method, *Transportation Research D*, 8:97-112.
82. ^GT. Limanond, D. Niemeier (2003) Accessibility and mode-destination choices: Exploring travel in three well-mixed neighborhoods in Puget Sound, WA, *Environment and Planning A*, 30: 219-238.
83. C. Gonzalez, D. Niemeier, A. Navrotsky (2003) The new generation of American scholars and the structure of the university, *Academe*, Jul-Aug:56-60.
84. ^GLin, J., D. Niemeier (2002) An exploratory analysis comparing a stochastic driving cycle to California's regulatory cycle, *Atmospheric Environment*, 36:5758-5770.

85. Niemeier, D. Spatial applicability of emission factors for modeling mobile emissions, (2002) *Environmental Science and Technology*, 36(4): 736-741
86. ⁶Hecht, H., D. Niemeier. (2002) Too Cautious? Avoiding risk in transportation project development, *Journal of Infrastructure Systems*, 8(1):1-9.
87. ⁶Sugawara, S., D. Niemeier (2002). Using an emissions-optimized equilibrium traffic assignment to explore reductions in vehicle emissions, *Transportation Research Record 1815*, National Research Council, Wash DC: 29-37.
88. ⁶Hecht, H., D. Niemeier (2002) A Post-audit review: Previous audits of project development on the California state highway system, *Transportation Research Record 1817*, National Research Council, Wash, DC: 1-10.
89. Niemeier, D., J.M. Utts, ⁶L. Fay. (2002). Using cluster analysis for optimal sampling of traffic count data: Air quality example, *ASCE Journal of Transportation Engineering*, 128(1): 97-102.
90. Eisinger, D., D. Niemeier, and M. J. Brady, (2002). Conformity: The New Force Behind SIP Deadlines, *EM Feature Article*, Air & Waste Management Association, January 2002
91. ⁶Hecht, H., D. Niemeier (2002) Transportation Project Efficiencies: The California Department of Transportation & California County Sales Tax Agencies, *Transportation Policy*, 9:347-356.
92. V.J. Davidson, J.M. Vance, D. Niemeier (2002) Women In Engineering Leadership Institute: Academic Leadership Development Plans, 12th International Conference of Women Engineers and Scientists, July, Ottawa, Canada
93. ⁶Korve, M. and D. Niemeier. (2002). Addition of a bicycle phase to a major intersection: A benefit-cost analysis, *ASCE Journal of Transportation Engineering*, 128(1): 40-48.
94. ⁶Kim, S., D. Niemeier. (2001) A weighted autoregressive model to improve mobile emissions estimates for locations with spatial dependence, *Transportation Science*, 35(4):413-424.
95. ⁶Ito, D., D. Niemeier, G. Garry. (2001) Conformity: How VMT-speed distributions can affect mobile emissions inventory modeling, *Transportation, Special Issue (ed. D. Niemeier)*, 28(4): 409-425.
96. ⁶Craig, J., B. Holmen, D. Niemeier, R. Shumway. Non-linear regression for modeling censored one-dimensional concentration profiles of fugitive dust plumes, *Journal of Agricultural, Biological, and Environmental Statistics*, 6(1):99-117.
97. Holmen, B., D. Niemeier, ⁶Y. Meng (2001). Time series analysis of above-road particulate matter at the Caldecott Tunnel exit, *Journal of Air and Waste Management Association*, 51(4):601-615
98. ⁶Hicks, J., D. Niemeier (2001). Incorporating Spatial Effects in Mobile Emissions Inventories, *Transportation Research Part D*, 6(3):153-177.
99. ⁶Held, A.E., D. Chang, D. Niemeier (2001) Observations and Model Simulations of Carbon Monoxide Emission Factors from a California Highway, *Journal of Air and Waste Management Association*, 51(1):121-132
100. ⁶Hendren, T., D. Niemeier (2001). State transportation expenditure reporting: Questions for the 21st century, *Public Works Management and Policy*, 5(3):179-198.
101. Niemeier, D., Boulanger, R., Bayley, P., Muraleetharan, K., Schmid, S., Barros, A.(2001) Integration of Engineering Education and Research: Perspectives from the NSF Civil and Mechanical Systems 1998 CAREER Workshop, *Journal of Engineering Education*, April: 199-202
102. ⁶Shaheen, S., D. Niemeier (2001). Linking technology and design to human factors: Minimizing vehicle constraints for the elderly, *Transportation Research, Part C*, 9(3):155-174.
103. ⁶Yee, J. and D. Niemeier (2000). Activity duration analysis using the Puget Sound Panel Survey, *Transportation Research, Part A*, 34(8):607-624.
104. ⁶Nanzetta, K., D. Niemeier, J. Utts. (2000) Changing speed-VMT distributions: The effects on emissions inventories and conformity, *Journal of Air and Waste Management Association*, 50(3):459-467.
105. Utts, J., D. Niemeier, ⁶L. Ring. (2000) Statistical methods for estimating speed correction factors with confidence intervals for mobile source emissions models, *Transportation Research, Part D*, 5(2):103-120
106. ⁶Meng, Y., D. Niemeier. (2000) A new screening measure to identify potential carbon monoxide hotspots, *Journal of Air and Waste Management Association*, 50(2):252-258
107. ⁶Meng, Y. and D. Niemeier (2000). U.S. double-stack rail technology: Corollaries for China, *International Journal of Services Technology and Management, Special Issue on Commercialization of Technology in Transportation*, 1(2/3):224-235.

108. ^GMorey, J., ^GT. Limanond, and D. Niemeier (2000). Validity in chase car data: Issues of variability and implications for construction of emissions cycles, *Journal of Transportation Statistics*, 3(2):1-14
109. ^GMeng, Y., D. Niemeier (2000). A new statistical framework for estimating localized CO concentrations, *ASCE Journal of Transportation Engineering*, 126(5):426-434.
110. Niemeier, D., ^GLin, K., and J. Utts. (1999) Using observed traffic volumes to improve fine-grained regional emissions estimates, *Transportation Research, Part D*, 4(5): 313-332
111. ^GFranklin, J. and D. Niemeier. (1998) Discrete choice elasticities for the choice of elderly and disabled travelers between fixed-route transit and paratransit, *Transportation Research Record*, No. 1623, Transportation Research Board, Washington DC
112. ^GMeng, Y. and D. Niemeier (1998) Project level carbon monoxide “hot-spots” analysis for level of service D intersections, *Transportation Research Record*, No. 1641, Transportation Research Board, Wash DC
113. ^GLin, K. and D. Niemeier (1998) Using multivariate multiple regression models to improve the link between air quality and travel demand models, *Transportation Research Part D*, 3(6): 375-387
114. Holmén, B. and D. Niemeier. (1998) Characterizing the effects of driver variability on real-world emissions, *Transportation Research Part D*, 3(2):117-128
115. ^GYee, J. and D. Niemeier (1997) Travel trends using the Puget Sound Panel Survey: A generalized estimating equations approach, *Transportation Research Part B*, 32(1): 21-34
116. Niemeier, D. Accessibility: An evaluation using consumer welfare, *Transportation*, 24(4):377-396
117. ^GTurner, T. and D. Niemeier (1997) Journey to work travel patterns of men and women: New evidence, *Transportation*, 24(4): 397-419
118. Handy, S. and D. Niemeier (1997) Measuring accessibility: An exploration of issues and alternatives, *Environment and Planning A*, 29(7):1175-1194
119. Niemeier, D. (1997) Systems evaluation, Papers from NSF-ESF Workshop on Social Change and Sustainable Transportation, *Journal of Transport Geography*, 5(1):35
120. Niemeier, D., J. Utts, K. Mack, A. Laub, and P. Rock (1997). Changing Missions, *Invited Paper*, 1997 Frontiers in Education Conference, Pittsburgh, PA.
121. ^GShafizadeh, K. and D. Niemeier (1997) Bicycle journey to work: Travel behavior and spatial attributes, *Transportation Research Record*, No. 1578, Transportation Research Board, Washington DC.
122. Niemeier, D. (1996) An engineers perspective: Comments on "Minority Women and Technology," Invited Commentary, *Technology Studies*, 3(1):127-130
123. Niemeier, D. (1996). “Transportation infrastructure funding: Linking women’s travel needs to local funding priorities,” *Invited Paper*, Proceedings, Second National Conference on Women’s Travel Issues, Baltimore, MD.
124. Niemeier, D. and J. Morita (1996). Duration of trip-making activities by men and women: A survival analysis, *Transportation*, 23(4):353-371
125. Niemeier, D., ^GT. Reed, S. Rutherford and P. Morin. (1995) Statewide programming: Implementing transportation policy objectives, *ASCE Journal of Infrastructure Systems*, 2(1):30-40
126. Niemeier, D. A longitudinal analysis of bicycle count variability: Results and modeling implications, *ASCE Journal of Transportation Engineering*, 122(3):200-206
127. Niemeier, D., Z. Zabinsky, Z. Zeng, and S. Rutherford (1995). Optimization models for transportation project programming process, *ASCE Journal of Transportation Engineering*, 121(1):14-26
128. Niemeier, D. and S. Rutherford (1994). Non-motorized transportation, *NPTS: Travel Mode Special Reports*, U.S. Department of Transportation, Federal Highway Administration, Office of Highway Information Management, Washington, D.C
129. Niemeier, D. and K. Beard (1993). GIS and Transportation Planning: A Case Study, *Computers, Environment, and Urban Systems*, 17:31-43
130. Silvia, J., D. Niemeier, R. D’Souza (2006) Social Networks and Travel Behavior: Report from an Integrated Travel Diary, *The expanding sphere of travel behavior research*, 11th International Conference on Travel Behavioral Research, Kyoto, Japan, August 2006.
131. B.L. Chua, Z. Li, D.T. McCormick, W.P. Shih, N.C. Tien, A.S. Wexler, D.A. Niemeier, B. Holmen (*In-press*) A configuration for high flow rate, high efficiency, and low pressure loss micro-machined active air filtration element for airborne micro-nanoscale particles separation and removal, Technical Digest of 18th IEEE International Conference on Micro Electromechanical Systems, Miami Beach, FL, Jan 2005, (Acceptance Rate 20%)

132. B.L. Chua, Z. Li, D.T. McCormick, W.P. Shih, N.C. Tien, A.S. Wexler, D.A. Niemeier, B. Holmen (Oct 2004) "Collection of Non-Gas Phase Nanoparticles by Microfabricated Electrostatic Precipitator", Accepted for CANEUS 2004 Conference on Micro-Nano-Technologies for Aerospace Applications, Monterey CA, Oct 31st – Nov 5th, 2004.
133. Kear, T^G., D. Niemeier (2004), Diesel particulate matter: Risk management strategies for the transportation planning process, Conference Proceedings, 10th International Conference on Urban Transport and the Environment, Dresden Germany
134. Shafizadeh^G, K., D. Niemeier (2004), Analysis of gross polluter cutpoints based on in-use vehicle inspection and maintenance test data in California, Conference Proceedings, 10th International Conference on Urban Transport and the Environment, Dresden Germany
135. Eisinger, D., M.K. Nanzetta^G, T. Kear^G, D. Niemeier, R.M. O'Loughlin, M.J. Brady (2003), Particulate Matter and Transportation Projects: An PM10 Analysis Protocol, Paper 70067, *Conference Proceedings*, Energy, Economic, and Global Challenges: Environment in the Balance, 96th Annual Meeting, Air & Waste Management Association, San Diego
136. ^GGao, O., D. Niemeier (2001) Changes in the California Motor Vehicle Emissions Inventory Models: EMFAC7g to EMFAC2000, Conference Proceedings, Air and Waste Management Association, 2001 Annual Conference, Orlando, FL.
137. ^GLin, J., D. Niemeier (2001) Development of new driving cycles: Assessing regional driving characteristics, N400, Conference Proceedings, Air and Waste Management Association, 2001 Annual Conference, Orlando, FL.
138. Niemeier, D., Nanzetta, K. (2000). Experimental evaluation of mobile emissions estimates: Do speed correction factors account for regional differences in emissions? Conference Proceedings, Air and Waste Management Association, Annual Conference, Salt Lake City, UT
139. Niemeier, D. *et al* (1999) Vehicle ownership patterns using the 1990 NPTS, *Invited Paper*, Conference Proceedings, Conference on Personal Travel: The long and the short of it, Washington, DC.
140. Zabinsky, Z. and D. Niemeier (1997). Linear programming approach to the capital rationing problem in transportation, *Invited Paper*, Conference Proceedings, INFORMS, Dallas, TX.

B. BOOK AND BOOK CHAPTERS

141. Niemeier, D. *et al* (2013) Chapter 14, Transportation, Southwest Climate Assessment, National Climate Assessment (lead author)
142. Niemeier, D., Beamish, T., Kendall, A., de la Pena, C., Grattet, R., London, J., Rios, M., Sze, J. (2011) A roadmap for research" Characterizing the impacts of uncertainty in the policy process: Climate science, policy construction and local governance decisions, Ashgate Publications, NL
143. Niemeier, D., Jones, E. , Cheng, R. (2010) Transportation Planning of the Future: Mitigating GHGs in the US through Green Litigation, Transportation and Economic Development Challenges (eds, K. Button, A. Reggiani), Ashgate Publications, NL
144. Niemeier, D., S. Bai, (2008) Urban Travel Demand Modeling, in Transportation Planning Handbook, 3rd Edition, (ed. M. Meyer), ITE, TB-011B, Washington DC:1023pps
145. Niemeier, D. (2008) Mobile Source Emissions: An Overview of the Regulatory and Modeling Frameworks, *Transportation Engineering Handbook: Planning Methods and Applications* (ed. K. Goulias), CRC Press
146. B. Holmén and D. Niemeier (2007) *Issues in Transportation-Air Quality Modeling*, The Pergamon/Elsevier Science Handbooks in Transport, Handbook 4: Transport and the Environment, (ed. D. Hensher, K. Button), Pergamon/Elsevier Science
147. Torres, R., J. Momsen and D. Niemeier (2007) "Cuba's Farmers' Markets in the Special Period, 1990-1995." In *Land and Development in the Caribbean Revisited*, edited by Jean Besson and Janet Momsen, Palgrave Macmillan: New York, NY, 53-68 [ISBN 140397392X]
148. Committee for Review of Travel Demand Modeling by the Metropolitan Washington Council of Governments (2004) Report to the NRC, National Research Council, National Academy Press: Washington DC
149. Committee to Review the Bureau of Transportation Statistics Survey Program, (2004) *Measuring Personal Travel and Goods Movement: A Review of the Bureau of Transportation Statistics' Surveys*, National Research Council, National Academy Press: Washington DC

150. Utts, J. and D. Niemeier (1998). Multinomial prediction intervals for micro-scale highway emissions, (ed. S.Geisser), Institute for Mathematics and Applications, Statistics in the health sciences: diagnostics and prediction, IMA Volume 114, Springer.

C. CONFERENCE PRESENTATIONS AND INVITED TALKS

- Palm, M., D. Niemeier (2016) Scale Meets Reality: Regionally Calculated Housing Vouchers Pre-Determines Voucher Dispersion, Annual Meeting, American Association of Geographers, San Francisco
- Beamish, T., R. Grattet, D. Niemeier (2016) Climate Change and Legitimate Governance: Land Use and Transportation Law and Policy in California, The Post-Carbon World: Advances in Legal and Social Theory, February, Brooklyn Law School
- Niemeier, D. (2015) California's surface transportation system: vulnerabilities, resilience options, and research needs, *2015 California Climate Change Symposium: Using Climate Science to Plan for a Resilient Future*, Sacramento, CA
- Mullin, M., D. Niemeier, R. Feiock (2015) Climate Planning and Performance in Regional Transportation Governance, Annual Meeting of the Association of Public Policy Analysis and Management, November, Miami FL,
- Rouhani, O., D. Niemeier (2015) Flat versus Spatially Variable Tolling: Case Study in Fresno, 56th Annual Transportation Research Forum, Atlanta
- Fackler, A. Niemeier, D. (2015) Construction Project Partnering and Its Effect on Project Performance, TRB, Annual Conference, Washington DC
- Karner, A., Niemeier, D. (2015) The effects of scale and scope, Workshop on Integrated land use/travel demand/air quality/exposure modeling – the future of regional planning? TRB, Annual Conference, Washington DC
- Rouhani, O. ^G, Knittel, C., D. Niemeier (2015) Road supply in central London: Addition of an ignored social costs, TRB, Annual Conference, Washington DC
- Update, Request of Senator Boxer, Federal reauthorization of the highway bill, 2014
- Discussant, Conference on Poverty and Place, UCD Center for Poverty Research, 2014
- Keynote**, International Conference on *Climate Change* Targets and Urban *Transport* Policy, Malta, April 2015
- Keynote**, International Conference on Sustainable Design, Engineering and Construction, Chicago, May 2015
- Keynote**, Public Lecture, The Ghosts of Affordable Housing: Access and Health, May, 2014, Montreal, CANADA
- Niemeier, D. (2014) Complete Streets in California, Challenges and Opportunities, TLUPAQ Conference, March, Charlotte, NC.
- Niemeier, D. (2014) The Known and the Unknown, Workshop: The Next 50 Years in Travel Analysis: What We Don't Know but Need to Know, TRB, Workshop 151, Jan, Washington DC
- Gaffron, P., D. Niemeier (2014) Refining estimation of traffic emissions and population affected without dispersion modeling, 2014 Tools of the Trade Conference in Burlington, Vermont
- 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, Reconciling Transportation and Air Quality Planning to Promote Sustainable Development, Washington, DC, January 12.
- Women in Science and Engineering Transformation, **Distinguished Lecture**, Univ of Illinois, Chicago, March 2012
- Burack President's Distinguished Lecture**, University of Vermont, Mar 2012
- California and Climate Change: Bellwether or Bust? Transport Studies Unit, University of Oxford, Feb 2012
- Bai, S., Eisinger, D., Wang, R. Niemeier, D., March 2009, Construction equipment retrofits and replacements: A new tool to estimate emissions reduction benefits, 19th CRC On-road Emissions Workshop, San Diego
- Invited Seminar, University of Reno, Nevada, April 2008, Interdisciplinary Connections in the Environment
- Invited Seminar, University of Washington, Seattle, Feb 2008, Climate Change and the Carbon Market
- Speaker, Climate change and travel modeling tutorial, Innovations in travel modeling conference, 2008, Transportation Research Board, Portland Oregon
- Plenary Talk (Invited), 2007 AEESP Conference, Interactions at the Interface – Making the Connections Between Environments, Disciplines and Nations, July, 2007
- ^GVan Houtte, J. D.S. Eisinger, D.A. Niemeier, Project Assessments for 8-Hour Ozone Conformity in Isolated Rural Areas" TRB 86th Annual Meeting, Washington DC
- D.S. Eisinger, D.A. Niemeier, Construction Emissions: Using Project Data to Improve Regional Inventories, Presented at the 86th Annual Meeting of the Transportation Research Board

- ^GYura, E., T. Kear, D. Niemeier, Using CALINE Dispersion to assess vehicular PM2.5 hotspots, *Transportation Research Board, Annual Conference*, Washington DC
- Zhang, K.M. ^G, A. S. Wexler, D. Niemeier, Y. Zhu, W.C. Hinds, C. Sioutas (Feb 2005) On-road size-resolved particulate emission factors: Results, Annual Conference of the American Association for Aerosol Research PM Supersites Conference, Atlanta, GA
- Bai, S., D. Niemeier, The impact of speed post-processing methods on regional mobile emissions estimation, Transportation Research Board, Annual Meeting, Washington DC
- Zhang, K.M. ^G, A. S. Wexler, D. Niemeier, Y. Zhu, W.C. Hinds, C. Sioutas (Feb 2005) On-road size-resolved particulate emission factors, European Aerosol Conference, Ghent, Belgium
- Niemeier, D. (Nov 2004) We all know we should, but do we? A comparative assessment of how gender roles are handled in current travel demand forecasting models, Transportation Research Board, Women's Issues in Transportation Conference, Chicago
- Niemeier, D. (Oct 2004), **Keynote Address**, Workshop for Women Faculty Candidates, University of Texas, Austin.
- Niemeier, D. (Oct 2004), *Invited Speaker*, On a Wing and a Prayer: Identifying Vehicles with High Tailpipe Emissions, Virginia Polytechnic Institute, Blacksburg
- Gao, O. ^G and D. Niemeier (June 2004) Using Weigh-In-Motion Traffic Data in Mobile Emissions Estimation and Air Quality Studies, North American Travel Monitoring Exhibition & Conference: Obtaining and Using Traffic Monitoring Data for Improving System Performance. Loews Coronado Bay, San Diego, California, June 27-30, 2004 (NATMEC 2004)
- Niemeier, D. (Feb 2004), *Invited Speaker*, Interdisciplinary Research and Education, NRC Workshop on Research Opportunities in GeoEngineering, Beckman Center, Irvine, CA
- Zhang, K.M. ^G, A. S. Wexler, D. A. Niemeier, Y. Zhu, W.C. Hinds, C. Sioutas (Oct 2004) On-road size-resolved ultrafine particulate emission factors for diesel and gasoline-powered vehicles, 23rd Annual Conference of the American Association for Aerosol Research, Atlanta, GA
- Niemeier, D. (October 2003), *Invited Panelist*, University of Michigan Women in Science and Engineering Leadership Retreat, Panel on Academic Leadership, Ypsilanti, MI
- Niemeier, D. (November, 2003), *Invited Speaker*, NSF Women's Engineering Leadership Conference, Dinner Speaker, Salt Lake City, UT
- Niemeier, D. (September 2003), *Invited Panelist*, Workshop for the Advancement and Retention of Underrepresented and Minority Engineering Educators, Dean and Department Chair Panel Discussion, National Science Foundation
- Gao, O. ^G, D. Niemeier (2004, *abstract reviewed*) Using WIM data to study heavy-duty truck traffic patterns for emission inventory development, The North American Travel Monitoring Exhibition and Conference, 2004, Transportation Research Board, San Diego, CA.
- Niemeier, D. (April 2003), *Invited Lecture*, Women in Science Lecture, Syracuse University
- Gonzalez, C., D. Niemeier, K. Scow, January 2003, The Future of the City of Intellect: From the Culture of Research to a Culture of Freedom: Examples from the Sciences, 89th Meeting of the Association of American Colleges and Universities: The Courage to Question: Liberal Education in the 21st Century, Seattle, WA
- Niemeier, D. (April 2002). Mobile Emissions: From Science to Apoplexy, *Invited Talk*, Northwestern University
- Niemeier, D. (April 2002). Department Chair Panel, *Invited*, University of Texas, Austin
- Eisinger, D., D. Niemeier, T. Kear (2002, *abstract review*) The California Department of Transportation/Air Resources Board Modeling Program (CAMP): New Research to Improve Speed Correction Factors and Mobile Source Emissions Modeling, EPA Conference: Emission Inventories Partnering for the Future, April, Atlanta, Georgia
- Niemeier, D. (2001). A Vision for Change, *Invited Participant*, A socratic discussion on university reform, Kellogg Foundation, Atlanta GA
- ^GLam, T., D. Niemeier (2001). The land-use transportation problem: Considering mobile emissions, 36th Annual Conference of the Canadian Transportation Research Forum, Vancouver, BC
- Niemeier, D. (2001). Fostering diverse leadership, Panel Moderator, 2001 AAHE Conference on Faculty Roles and Rewards, *The Changing Professoriate: New Technologies, New Generation*, Orlando, FL
- Niemeier, D. (2001) Refining the spatial and temporal inputs from travel demand models, The Data Analysis Conference for the 1997 Southern California Ozone Study-North American Research Strategy for Tropospheric Ozone, California Air Resources Board, Diamond Bar, CA

- ⁶Morey, J., D. Niemeier (2001, *abstract review*), Estimating travel activity on unpaved roads for PM10 conformity, International Emission Inventory Conference: One Atmosphere, One Inventory, Many Challenges, U.S. EPA, Denver, CO.
- Niemeier, D. (1999). Highway Economic Recovery System, Vetting Workshop, *Invited Participant*, Carnegie-Mellon University, Pittsburgh.
- Niemeier, D. (1999). Statistical variability in mobile emissions estimation, 1999 Joint Statistical Meetings, Baltimore.
- Hendren, T., D. Niemeier (1999). State Highway Expenditure Reporting: What Questions Should We Ask for the 21st Century, Transportation Research Board, 78th Annual Meeting, Washington, DC.
- Niemeier, D. (1998). Welfare to work in real-time, *Invited Presenter, Getting Welfare Recipients to Work: Transportation and Welfare Reform, Conference*, Dept. of Urban Planning, University of California, Los Angeles.
- ⁶Franklin, J., D. Niemeier (1998). Discrete choice elasticities for the choice of elderly and disabled travelers between fixed-route transit and paratransit, Transportation Research Board, 77th Annual Meeting, Washington, DC.
- ⁶Meng, Y., D. Niemeier (1998). Project level carbon monoxide “hot-spots” analysis for level of service D intersections, Transportation Research Board, 77th Annual Meeting, Washington, DC.
- Niemeier, D (1997), Workshop Chair, *Nationwide Personal Transportation Survey*, 1st Symposium, Bethesda, MD.
- Shafizadeh, K., D. Niemeier, P. Mokhtarian, and I. Salomon, (1997). Telecommuting commuting benefits and costs: A literature review and analysis framework, 8th Meeting of the International Association of Travel Behavior Research, Austin, TX.
- Niemeier, D., ^GM. Bagley, and J. Nelson (1997). Value of travel time: Accounting for household responsibility, 8th Meeting of the International Assoc of Travel Behavior Research, Austin, TX.
- Niemeier, D. (1996). *Transportation Investment Strategy under ISTEA*, Transportation Research Board, 75th Annual Meeting, Washington, DC.
- ⁶Shafizadeh, K., D. Niemeier (1996). Bicycle journey to work: Travel behavior characteristics and spatial attributes, Annual Meeting, *Transportation Research Board*, Washington DC.
- Niemeier, D. (1995). Invited Participant, Workshop on the Measurement of Range, Scope and Extent of the Impacts of Congestion Pricing, U.S. DOT, FHWA, Washington, DC.
- Niemeier, D. (1995). Invited Participant, Accessibility as Planning Goal and Performance Measure, ACSP, Chicago
- Niemeier, D. (1995). Session Moderator, Travel Demand Models, 5th Annual National Transportation Planning Methods Application Conference, Seattle, WA.
- Niemeier, D. (1995). Spatial analysis for neighborhoods on rate of transit usage, Transportation Research Board, 74th Annual Meeting, Washington, DC.
- Niemeier, D. (1995). Recent data collection and implications for modeling, Transportation Research Board, 74th Annual Meeting, Washington, DC.
- Niemeier, D. (1994). Invited Participant, Chapter Preparation on Changing Demographics and Transportation Implications, Biennial Report to Congress on the Infrastructure, Tempe, AZ.
- Niemeier, D. (1994). Transportation Planning in Context, Nevada Chapter of the American Planning Association, 1994 Annual Conference: Planning with Design, Los Vegas, Nv.
- Niemeier, D., F. Mannering, (1994). Interrelationships between workplace location and mode choice, 73rd Annual Meeting, Transportation Research Board, Washington, DC.
- Niemeier, D., J. Morita (1994). Duration of trip-making activities by men and women: A survival analysis, 73rd Annual Meeting, Transportation Research Board, Washington, DC.
- Rutherford, S., D. Niemeier, C. Kooperberg (1994). Daily travel patterns and electric vehicles: An exploratory data analysis, 73rd Annual Meeting, Transportation Research Board, Washington, DC.
- ⁶Badgett, S., D. Niemeier, S. Rutherford (1994). Case studies: Employee commuter cycling in Seattle, 73rd Annual Meeting, Transportation Research Board, Washington, DC.
- Niemeier, D., S. Rutherford, D. Whitehouse (1993). Project programming: Implementing statewide transportation policy objectives, 73rd Annual Meeting, Transportation Research Board, Committee on Transportation Programming, Planning and Systems Evaluation, Washington, DC.
- Niemeier, D., S. Rutherford, ^GJ. Strauss (1992). Analysis of participants in TDM alternatives at the University of Washington, 72nd Annual Meeting, Transportation Research Board, Wash.DC.
- Niemeier, D. (1991). GIS and Transportation Planning, Instructor, Lincoln Land Institute, Special Conference on Innovations in GIS, Boston, MA.

EDUCATIONAL, TEACHING ACTIVITIES

COURSES TAUGHT

Freshman Seminar:

2014 (Social Media Trends); 2016 (Human Rights and Humanitarian Aid)

Undergraduate Courses:

ECI 162, Sustainable Design, 1994-2015 (Project-based, highest dept. enrollments for design courses)

Capstone Senior Design Experience, 2016-Present (New single design course offered across dept)

International Abroad, Establishing first UC Davis project-based course. This course is designed to help engineering students take advantage of international abroad experiences. The first course will be offered in Nepal, during winter break 2018

Graduate Courses:

Data Science and the Built Environment

Air quality and urban design

Infrastructure Economics

Travel demand modeling,

UNDERGRADUATE RESEARCHERS

Kahn Tran (Mathematics, McNair Scholar), 2015-Present

Spencer Katz (International Relations), 2016-Present

Jake Parkhurst (Mechanical Engineering), 2015-Present

Raieta Teymouri (Electrical Engineering, 2015-Present

Michael Mann (Civil Engineering), 2016-Present

Florence Chung (Civil Engineering), 2015-Present

Lucas Prearo (Civil Engineering, Brazilian Scholar) Summer 2016

Marcus Batista (Civil Engineering, Brazilian Scholar) Summer 2016

Ruan Gomes (Civil Engineering, Brazilian Scholar) Summer 2016

Jean Felipe (Civil Engineering, Brazilian Scholar) Summer 2016

Lily Tomalvik (Civil Engineering), 2013-2016

Laural Suddath (International Relations): 2014-2016

Richard Lee (Civil Engineering), 2013-2016

Joshua Garrison (Electrical Engineering), 2012-2015

Michael Corey (Mechanical Engineering) 2013-2014

Michelle Zaveda (Mechanical Engineering), 2013-2014

Ben Bigalow (Math) 2011-2014

Tracy Heiderbach (Civil Engineering) 2011-2014

Taylor Helgestad (Civil Engineering) 2011-2014

Anna McKenna (Civil Engineering) 2011-2014

Michelle Rugg (Civil Engineering) 2011-2013

Lindsey Black (History) 2010-2013

Chin, Caitlin (Civil Engineering) 2010-2011

Ng, Allen (Civil Engineering) 2010- 2011

Caldolon, Dean (Civil Engineering) 2010-2011

Urratia, Annemarie (Public Policy) 2009-2011

Cheng, Roger (Civil Engineering) 2008-2011

Bow, Benjamin (Civil Engineering) 2008-2009

Liang, Eric, (Civil Engineering) Research Period: 2007-2009

Wu, Janice (Civil Engineering) 2007-2008

Nie, Rudy (Civil Engineering, 2008) 2003-2008

Tsering Wangdon (Civil Engineering, 2008) 2003-2008

Osborne, Adrienne (Civil Engineering, 2004), 2000-2003.

Kalvass, Jeffrey (Computer Science, 2005), 2003-2004.

Seed, Roby (Env. Sci. and Policy, 2005), 2004-2005.

Kable, Jason (Civil Engineering, 2005), 2003-2004.

Duong, Timothy (Mechanical Engineering, 2004), 2001-2003.

Whitten, Danielle (International Policy, 2002), 1998-2002
 Thomas, Megan, (BSCE, 2000), 1995-2000.
 Montez, Russell, (BSCE, 1999), 1996-1999.
 Flourney, Marlon, (BS-Env. Policy, 1999), 1998-1999.
 Van Wert, Chris (BSME, 1999), 1996-1998.
 Korve, Matt (BSCE, 1997), 1996-97.
 Hulse, Lisa (BSCE, 1995), 1994-95
 Shafizadeh, Kevan (BSCE, 1995), 1994-96.

MASTERS STUDENTS (MAJOR ADVISOR)

Current Autumn Bernstein (Transportation Technology and Policy)
 2016 Naomi Reimer (Geography)
 2015 Nanako Tenjin (Civil and Environmental Engineering)
 Jia Qin (Civil and Environmental Engineering)
 2014 Aaron Fackler (M.S., Transportation Technology and Policy)
 2013 Sydney Vergis (M.S., Transportation Technology and Policy)
 2012 Jin Qui (M.S., Civil and Environmental Engineering)
 2010 Alexandra Timoshek (M.S., Transportation Technology and Policy)
 2006 Elizabeth Yura (M.S., Civil and Environmental Engineering)
 Justin Kable (M.S., Civil and Environmental Engineering)
 Reno Giordano (M.S., Transportation Technology and Policy)
 2004 Rosenberg, Sandra (M.S., Transportation Technology and Policy)
 2001 Foresman, Erin (M.S., Ecology)
 2000 Ito, Doug (M.S., Transportation Technology and Policy)
 Sumpter, Matt (M.S., Transportation Technology and Policy)
 1999 Korve, Matt (M.S., Civil Engineering)
 Hicks, Jaime, (M.S., Civil Engineering)
 1998 Sugawara, Satoshi (M.S., Civil Engineering)
 Shafizadeh, Kevan (M.S., Civil Engineering; Co-Advise: P. Mokhtarian)
 Lakshiman, Kishore (M.S., Civil Engineering)
 Brown, Shane (M.S., Civil Engineering)
 Franklin, Joel (M.S., Civil Engineering)
 1995 Stokes, JD (M.S., Civil Engineering)

DOCTORAL STUDENTS (MAJOR ADVISOR)

Current Steven Qian (Civil and Environmental Engineering)
 Yizheng Wu (Civil and Environmental Engineering)
 Johanna Heyer (Civil and Environmental Engineering)
 Ben White (Transportation Technology, and Policy)
 2016 Aaron Fackler (Civil and Environmental Engineering) An evaluation of collaborative partnering as a means of improving construction cost outcomes
 Matt Palm (Geography) The Prospect for Aligning State and Federal Housing Policies with Sustainable Transport Goals; Sr. Researcher, CA Housing Finance Authority
 2013 Dana Rowan (Ecology) A retrospective analysis of environmental documentation with respect to smart growth planning and implementation, Principle, Sustainable Systems Research, LLC
 Boon-Ling Yeo (Ecology, co-advise) Examining the trade-offs and synergies of interdependent environmental policies: Managing reactive nitrogen and greenhouse gases from agroecosystems, Post-doc, UC Berkeley
 2012 Alex Karner (Civil and Environmental Engineering), Transportation Planning and Regional Equity, History, Policy and Practice; Assistant Professor, Georgia Tech
 Omid Rouhani (Civil and Environmental Engineering), Frameworks for Public-Private Partnerships for Infrastructure, Current: Assistant Professor, McGill University
 2010 Greg Gould (Civil and Environmental Engineering), *Locomotive Railroad Emissions Modeling*, Current: NRDC National Science Fellow (Post-Doc); University of New Mexico, Assistant Professor

- 2008 Peng Wu (Civil and Environmental Engineering), *Improving resolution of mobile source emissions modeling: A GIS-based disaggregated method*, Current: Principal, Risk Quantification, Constellation Energy Group
- Julia Silvis (Transportation, Technology, Policy), *Connecting social networks, ridesharing, and mobility: A spectrum of seniors' behavior*, Current: McKinsey & Company
- 2007 Song Bai (Civil and Environmental Engineering), *The impact of dynamic assignment methods and speed variability on regional vehicle emissions inventories*, Current: Sonoma Technology Inc.
- Jeroen Van Houtte (Civil and Environmental Engineering), *The California heavy-duty vehicle inspection program: Non-fleet vehicles and fleet vehicles. A second-hand market with discontinuous valuation of a defect; non-complying vehicles: Repair, replace or do nothing*, Current: Antwerp Planning Association
- 2006 Kear, Tom (Civil and Environmental Engineering, 2006), *On-road heavy-duty diesel exhaust particulate mass emissions*, University of California, Davis, Current: Cambridge Systematics.
- Chua, Beelee (ECE, 2006), *Microfabricated corona ionizer and its applications*, University Of California, Davis, Current: BioTech Start-up
- 2005 Sogutlugil, Mimi (Civil and Environmental Engineering, 2005), *Examining the effects of intra-hour and lane variability in average speeds on estimated emissions and air quality*, Current: Air Resources Board
- Kiettipong Jierranaitanakit (Civil and Environmental Engineering, 2005), *An Application of Logit Modeling for The Classification of Network Links for Hourly Traffic Patterns in Emission Inventories*, Bureau of Highway Safety, Thailand
- 2004 Gao, Oliver (Civil and Environmental Engineering, 2004), *Temporal and Spatial Statistical Analysis of Heavy-Duty Diesel Truck Traffic and Ozone/NOx Dynamics in Southern California*, Assoc. Professor, Cornell University
- Nanzetta, Kathy (Civil and Environmental Engineering, 2004) *Ultrafine particle number concentration measurements of a Northern California freeway and the relationships with meteorology and traffic volumes*, University Of California, Davis: 445 pp.
- 2003 Hendren, Patricia, G. (TTP, 2003) *Evaluating the link between resource allocation decisions and transportation performance measures: 17 years of spending on roads*, University of California, Davis: 436pp., Current: Director, Office of Capital and Strategic Planning, Washington Metro Transit Authority
- Khorashadi, Ahmad (Civil and Environmental Engineering, 2003) *Analysis of driver injury severity logit models of truck involvement/truck causation*, University of California, Davis: 236pp.
- Morey, Jennifer (Ecology, 2003) *Refining PM10 emissions inventories in CA: New methods for estimating vehicle activity on unpaved roads*, University of California, Davis: 185pp., Current: University of Washington, Law School, Seattle, WA
- Zheng, Yi (Civil and Environmental Engineering, 2003) *A new grid-based mobile source emission inventory model*, University of California, Davis: 226pp., Current: President, Yuanhong Venture Capital Co, Ltd.
- 2002 Lin, Jane (Civil and Environmental Engineering, 2002) *A markov process approach to driving cycle development*, University of California, Davis: 215pp., Current: Associate Professor, University of Illinois, Chicago (Aug 2003-Present)
- 2001 Limanond, Thirayroot (Civil and Environmental Engineering, 2001), *An Integrated Travel Model for Neighborhood Shopping*, Unpublished dissertation, Current: Asian Institute of Technology
- Hecht, Harry (June 2001, Civil and Environmental Engineering), *Development of major transportation projects in California*, University of California, Davis, Current: Independent Consultant
- 1998 Meng, Yu (Civil and Environmental Engineering, 1998), *A New Statistical Model for Modeling CO "Hotspots"*, University of California, Davis, Current: Director, Fixed Income Quantitative Research, Global Fixed Income, CalPERS
- 1997 Lin, Kuo-shian (Civil and Environmental Engineering, 1997), *Improving Transportation Emissions Modeling by Integrating Ground Counts with Travel Demand Model Forecasts*, University of California, Davis, Current: Deputy Chief, Transportation Planning Division, Ministry of Transportation and Communications, Taipei, Taiwan.

D. POST-DOCTORAL RESEARCHERS (MAJOR ADVISOR)

Sheryl Mebane, 2008-2010

Natasha Malyskina, 2009-2010

Song Bai 2006-07, current: Sonoma Technology

Sangho Choo 2004-05

Mimi Sogutlugil, 2005-06, current: California Air Resources Board

Shafizadeh, Kevan, 2002-2004, Current: Assoc. Professor, Cal State University, Sacramento

Chen, Cynthia, 2002-2003, Current: Assoc Professor, University of Washington

Lam, Terence, 2000-2002 Current: Sr. Researcher, US Government Accounting Office

Kim, Sung, 1998-1999 Current: Assistant Professor, University of Georgia

SERVICE (*leadership positions are bolded*)

A. DEPARTMENT

Current Member, Space Committee, 2015-Present

Past Service Member, Search Committee, Geotechnical Group, 2015

Member, Graduate Program Committee, 2014-2016

Chair, Transportation Position Search, 2014

Graduate Program Committee, 2012-2015

Chair, Department, 2001-2004

Vice-Chair, Department, 2000

Undergraduate Curriculum Revisions Committee, 2000

Chair, Building Committee, 2000

Vice-Chair, 2000

Chair, Building Committee, 2000

Undergraduate Curriculum Revisions Committee, 2000

Management Technology Program, Ad-Hoc Committee, 2000

Building Committee, 1999

Undergraduate Curriculum Revisions Committee, 1999

Undergraduate Advisor, 1999

Building Committee, 1998

Computer Committee, 1998

Undergraduate Curriculum Revisions Committee, 1997

Faculty Search Committee, 1997

Undergraduate Advisor, 1997

Building Committee, 1996

Computer Committee, 1996

Undergraduate Curriculum Revisions Committee, 1996

Faculty Search Committee, 1996

Academic Senate Representative, 1995

Computer Committee, 1995

Academic Senate Representative, Alternate, 1994

B. COLLEGE

Past Service **Member**, College Executive Committee

Advisory Committee on Recruitment

Committee on Undergraduate Study

Chair, Committee on Student Development

Committee on Undergraduate Study

Chair, Committee on Student Development

C. CAMPUS

Current **Co-Chair**, Data Science Initiative for consideration of a department, 2015-Present

Member, Executive Committee, Geography Graduate Group, 2012-Present

Mentor, Guardian Scholars Program for Fostered Young Adults, 2014-Present, UC Davis

Member, Steering Committee, Global Summit on Health and Sustainability, 2015-Present

Co-Director, Human Rights Institute, UC Davis, 2016-Present

Past Service

- Chair**, Budget and Planning, Academic Senate, 2013-2016
- Member**, Executive Council, Academic Senate, 2013-2016
- Diversity Launch Mentoring Committee, BME Faculty member, 2015
- Co-Chair**, Dean Search, College of Engineering, 2014
- UC Davis Salary Task Force, 2014
- Industrial Design Faculty Search Committee, 2014
- Recruitment Committee, Vice Chancellor of Student Affairs, 2013
- Regents Scholars, Mentoring Committee, 2012
- Member**, Dean Appraisal Committee, 2009
- Chair**, NCAA Certification Report, Subcommittee on Academic Integrity, 2006
- Chair**, Special Senate Review Committee, UC Davis Transition to Division 1 Athletics, 2003
- University Mediator**, Mediation Services, Human Resources, 2002
- Preliminary Investigating Officer, Provost Office, Academic Personnel, 2002
- Sub-Committee: Academic Planning and Development, Graduate Council, 2002
- Committee on Academic Planning and Budget Review, 2001
- University Mediator, Mediation Services, Human Resources, 2001
- Committee to develop material for new chairs, Vice Provost for Academic Affairs, 2001
- Sub-Committee: Academic Planning and Development, Graduate Council, 2001
- Committee on Academic Planning and Budget Review, 2000
- Member**, Provost Academic Advisory Council, 2000
- Sub-Committee: Academic Planning and Development, Graduate Council, 2000
- Chair**, Arbitration Hearing, Human Resources and Risk Management, 2000
- University Mediator**, Mediation Services, Human Resources, 2000
- Consortium for Women and Research Advisory Board, 2000
- UC Davis Washington Center Advisory Committee, 2000
- Atmospheric Science Graduate Group, Executive Committee, 2000
- Member**, Provost Academic Advisory Council, 1998-1999
- Member**, Provost Academic Planning Council, 1998
- Member**, Chancellor's and Provost's Task Force on Faculty Recruitment, 1999
- Sub-Committee: Academic Planning and Development, Graduate Council, 1999
- Chair**, Arbitration Hearing, Human Resources and Risk Management, 1999
- UC Davis Washington Center Advisory Committee, 1999
- Graduate Council Program Review, Materials Science, 1999
- Consortium for Women and Research Advisory Board, 1999
- Recruitment Committee, Vice Provost, Undergraduate Studies, 1998
- Chair**, Consortium for Women and Research Advisory Board, 1998
- Committee on Admissions and Enrollment, 1998
- UC Davis Washington Center Advisory Committee, 1998
- Sub-Committee, Humanities and Environmental Sciences, Env. Initiative, 1998
- Panelist, Chancellor's Fall Conference, Topic: Curriculum and Outreach, 1998
- Graduate Council Review, Materials Science, 1998

D. PROFESSIONAL OUTREACH AND ENGAGEMENT

Current

- Member, National Academy of Engineering, Board on Energy and Environmental Systems, 2012-Present
- Member, Intelligence Science and Technology Experts Group (ISTEG), National Academies of Sciences, Engineering, and Medicine, 2015-Present
- Journal Manuscript Reviews
 - Environmental Science and Technology*
 - Atmospheric Environment*
 - Transportation*
 - Environmental Justice*
 - Global Environmental Change*
- AEESP Membership and Demographics Committee, 2014-Present

Cluster 2 Chair, NECTAR, Policy and the Environment, 2014-Present

Past Service

Member, Scientific Committee, NECTAR Conference, Michigan, 2015
Member, Departmental Review Committee, UC Berkeley, Dept. of Civil and Environmental Engineering, 2014
Science Advisory Committee, Capital Public Radio, 2012-2014
Member, NCHRP Committee (NCHRP 25-38), Data Sources for MOVES, 2014-2014
Oversight Panel (Sacramento site), SHRP 2 Expert Task Group, Partnership to Develop and Integrated, Advanced Travel Demand Model and Fine-Grained, Time-Sensitive Network (C10B-ETG) University of Washington, Department of Civil and Environmental Engineering, Visiting Committee, 2014-2014
Elected Member-at-large, AAAS Section on Engineering, 2007-2012
Member, Transportation Research Board, Com. On Construction Management (AFH10), 2008-2014
MARs Corp., Sustainability Science Board, 2007-2010
Yolo County Housing: GHG Inventory for Low Income Housing and Operations, 2008
Expert Review Panel, Delta Risk Management Strategy (DRMS) Evaluation, 2008
Yolo County Government Operations: Reducing GHG Emissions from County Operations, 2007
Center for Sustainable Transportation, *Moving from Research to Practice: An AB32 Workshop for Caltrans, Lead Convener*, 2007
Panama Canal 3rd Lock, Cost Review, 2006
External Reviewer, University of Wisconsin, Dept. of Civil and Env Engineering, 2005
Award Nominations and Review Plan Committee, AEESP, 2005
Member, Academic Review Panel to Review Cost Increases on San Francisco Bay Bridge, Appointed by the Secretary of Business, Transportation and Housing, Sacramento, CA, 2005
Member, ASCE Committee on Academic Prerequisites for Professional Practice, 2005
Panelist, National Science Foundation, Graduate Student Research Fellowship Review Panel, 2005
External Reviewer, Graduate Program Review, Oregon State University, Dept. of Civil and Environmental Engineering, 2003
Member, ASCE President's Committee on Faculty Professional Engineering Licensure, 2004
Peer Reviewer, On-site Review of the Mickey Leland National Urban Air Toxics Research Center, U.S. Environmental Protection Agency, Office of Research and Development, Sept. 17-19, 2005
Member, Committee for Review of Travel Demand Forecasting Modeling by the Metropolitan Washington Council of Governments, Transportation Research Board, National Research Council, National Academy of Science, 2005
Member, ASCE Committee on Academic Prerequisites for Professional Practice, 2003
Member, NSF Review Panel, Director's Award for Distinguished Teaching Scholars (DTS), 2003
Member, Committee to Review FHWA BTS Data, National Research Council, National Academy of Science, 2002
Member, Committee for Review of Travel Demand Forecasting Modeling by the Metropolitan Washington Council of Governments, Transportation Research Board, National Research Council, National Academy of Science, 2002
External Reviewer, College of Engineering, Dept of Civil Engineering, University of Connecticut, 2002
Member, Transportation-Air Quality Task Force, Air and Waste Management Association, 2002
Member, ASCE Committee on Academic Prerequisites for Professional Practice, 2002
Reviewer, 3 Outside Tenure Reviews/1 Outside Appointment Review, 2002
NSF Review, Division of International Programs, International Cooperative Science, 2002
NSF Biocomplexity Review Panel, 2001
Canadian Foundation for Climate and Atmospheric Science, Proposal Review, 2001
Member, Committee to Review FHWA BTS Data, National Academy of Science, 2001
Member, External Expert Peer Review Group, NCHRP Project 25-15, Transportation Research Board, National Research Council, 2001

Member, External Expert Peer Review Group, Washington Department of Transp, Statewide, 2001
 NSF Infrastructure and Information Systems CAREER Review Panel, 2000
 NSF IGERT Review Panel, 2000
 External Reviewer, College of Engineering, Michigan State University, 2000
 Reviewer, *Modeling MOBILE Source Emissions*, National Research Council, The National Academy, 1999
 Reviewer, EPA Draft Guidance Document: *Development of Methodology for Estimating VMT Weighting by Facility Type*, 1999
 Transportation Research Board, *Committee on Passenger Travel Demand Forecasting*, 1997-1999
 ORU External Review Committee, Institute of Transportation Studies, University of California, Irvine, 1999
 Transportation Research Board, *Committee on Passenger Travel Demand Forecasting*, 1997-2002
 Transportation Research Board, *Committee on Passenger Travel Demand Forecasting*, 1997-2002
 Transportation Research Board, *Committee on Intergovernmental Relations and Policy Processes*, 1997-2001
 Transportation Research Board, *Committee on Intergovernmental Relations and Policy Processes*, 1997-2001
 Professional Engineering Review Course, Transportation, 1996
 Federal Transit Agency, Invited Participant, *TCRP Project H-15: Defining the Research Needed to Support Mobility for the 21st Century*, 1996
 UCTC, New England Region, Massachusetts Institute of Technology, Proposal Review, 1996
 Professional Engineering Review Course, 1995

E. PUBLIC LECTURES

2010- Sun City Roseville Humanists
 Present Renaissance Society
 Speaker, Annual Luncheon, Woodland League of Women Voters
 Sierra Club, Climate Change Lecture Series
 United Nations Association Annual Dinner, Northern California Chapter
 Community Climate Change Forum, League of Women Voters, Sacramento County
 Physicians for Social Responsibility

PARTIAL LIST OF TECHNICAL REPORTS

H. Chen, D. Eisinger, D. Niemeier, Construction Equipment Retrofits And Replacements: A New Tool To Estimate Emission Reduction Benefits, December, 2008, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
 Bai, S., D. Eisinger, D. Niemeier MOVES vs. EMFAC: A Comparative Assessment Based on a Los Angeles County Case Study, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
 Bai, S., D. Eisinger, D. Niemeier, Modeling Uncertainties and Near-Road PM2.5: A Comparison of CALINE4, CAL3QHC and AERMOD" *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
 Jungers, B., T. Kear, D. Eisinger, D. Niemeier, A survey of air quality dispersion models for project level conformity analysis. *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.,
 T. Kear, D. Eisinger, D. Niemeier, Using 'SIP Currency' Principles to Address Outdated Conformity Emission Budgets, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
^GVan Houtte, J. D.S. Eisinger, D.A. Niemeier, Gross Emitting Vehicles: A Review of the Literature, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
 Gao, O., D. Niemeier (2003) Hourly truck traffic profiles and emissions: Southern California weigh-in-motion data, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.,
 Eisinger, D., K. Nanzetta, T. Kear, R. O'Loughlin, M. Brady, D. Niemeier (2003) Particulate Matter and Transportation Projects, An Analysis Protocol, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
 Sogutlugil, Mimi, D. Niemeier (2003) Examining the speed-VMT distributions for emissions inventories, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.,
 Holmen, B., D. Niemeier, ^GM. Nanzetta, S. Bergen (2002) The Physical and Chemical Characterization of Nanoparticle Particulate Matter Emissions from Gasoline and Diesel On-Road Motor Vehicles, Phase 1

- Scoping Study, Draft Final, Prepared for the California Air Resources Board, Research Division, Sacramento, CA, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
- ⁶Lam, T., D. Niemeier (2002) Review of statewide transportation planning models, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA. aqp.engr.ucdavis.edu
- ⁶Lam, T., ⁶K. Jierranaitanakit, D. Niemeier (2002) Estimation of Hourly Allocation Factors for the Central California Ozone Study Using State-Wide Model Data and Real Time Traffic Data, prepared for the California Air Resources Board, CalEPA, Sacramento, CA, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
- ⁶J. Morey , Niemeier, D. (2002). Using GIS to Estimate Statewide Vehicle Activity and Roadway Mileage for Unpaved Roads in California, prepared for the California Air Resources Board, CalEPA, Sacramento, CA, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA
- ⁶Zheng, Y., D. Niemeier (2001) A new grid-based mobile sources emissions inventory model, Draft Report, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA. aqp.engr.ucdavis.edu
- ⁶Gao, O., D. Niemeier (2001) Mobile Emissions Inventories: EMFAC7g and EMFAC2000 comparisons by air basin, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA. aqp.engr.ucdavis.edu
- Eisenger, D., D. Niemeier (2001) California conformity timelines: EMFAC 2000 approval considerations, Draft Report, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.
- Niemeier, D., ⁶M. Sumpter (2000). Transportation needs of Sacramento County welfare recipients, UCD-ITS-RR-00-2, Final Report, prepared for the Sacramento County Department of Human Assistance, Institute of Transportation Studies, Davis, CA.
- ⁶J. Morey , ⁶T. Limanond, Niemeier, D. (2000). Data Collection for Driving Cycle Development: Evaluation of Data Collection Protocols, UCD-ITS-RR-00-3, Final Report, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.
- Niemeier, D., ⁶Ito, D. (2000). Transportation air quality conformity modeling in Sacramento and San Joaquin Valley, Final Report, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.
- Niemeier, D., ⁶J. Hicks, ⁶M. Korve (1999). Estimation of allocation factors for disaggregation of travel demand model volumes to hourly volumes for highways in the South Coast Air Basin: Southern California Ozone Study, UCD-ITS-RR-13, prepared for the California Air Resources Board, Institute for Transportation Studies, Davis, CA.
- Niemeier, D. ⁶J. Morey , ⁶T. Limanond, K. Lakshminarayanan , J. Franklin (1999). An exploratory study: A new methodology for estimating unpaved road miles and vehicle activity on unpaved roads, UCD-ITS-RR-99-2, Final Report, prepared for the California Air Resources Board, Institute of Transportation Studies, Davis, CA.
- Niemeier, D. ⁶T. Limanond, K. Lakshminarayanan, J. Morey, J. Franklin (1999). Using GIS to estimate unpaved road miles and vehicle activity on unpaved roads, UCD-ITS-RR-99-3, Final Report, prepared for the California Air Resources Board, Institute of Transportation Studies, Davis, CA.
- Niemeier, D., J. Utts, ⁶K. Nanzetta, ⁶L. Ring (1998). Speed correction curves: Scoping Study, UCD-ITS-RR-98-12, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.
- ⁶Reed, T., ⁶J. Franklin, D. Niemeier, T. Rufulo (1998), Benefit-cost analysis of multimodal projects for state-wide prioritization of capacity investments, UCD-ITS-RR-98-3, Institute of Transportation Studies, University of California, Davis, CA
- Kear, T., ⁶K. Dougherty, K. Lee, D. Eisinger, D. Niemeier (1998), Transportation project-level carbon monoxide protocol user workbook, UCD-ITS-RR-98-9, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.
- ⁶Franklin, J., D. Niemeier (1998), The prioritization of mobility improvements using a multicriteria prioritization algorithm, UCD-ITS-RR-98-4, Institute of Transportation Studies, University of California, Davis, CA
- ⁶Shafizadeh, K., D. Niemeier, P. Mokhtarian, I. Saloman (1998). The Costs and Benefits of Telecommuting: An evaluation of macro-scale literature, California PATH Working Paper, UCB-ITS-PWP-98-5, Institute of Transportation Studies, University of California, Berkeley.

- ⁶Yu, M., D. Niemeier (1997). Modeling carbon monoxide concentrations at level of service D intersections, UCD-ITS-RR-98-7, prepared for the California Department of Transportation, *UC Davis-Caltrans AQ Project Report Series*, Davis, CA.
- ⁶Lin, K.S., D. Niemeier (1997). Exploratory analysis: A method to improve the link between travel demand models and DTIM2, Final Report, funded by California Air Resources Board, Institute of Transportation Studies, UCD-ITS-RR-95-10, Davis, CA.
- ⁶Yee, J., D. Niemeier (1996). Overview of travel trends in the Puget Sound Panel Data, 1989-1993, Task E, Volume 1, Project Battelle 94-16, FHWA, HPM-40, Washington, DC.
- ⁶Yee, J., D. Niemeier (1996). Advantages and disadvantages: Longitudinal vs. repeated cross-section surveys, Project Battelle 94-16, FHWA, HPM-40, Washington, DC.
- ⁶Yee, J., D. Niemeier (1996). Specialized travel trends in the Puget Sound Panel Data, 1989-1993, Task E, Volume 2, Project Battelle 94-16, FHWA, HPM-40, Washington, DC.
- Niemeier, D., J. Myers (1995). Categories for Oregon Department of Transportation modernization project evaluation, Draft, Oregon Transportation Department, Salem, OR.
- Niemeier, D. (1995). Analysis of bicyclist survey responses from the Puget Sound Area and Spokane, Washington State Transportation Commission Innovations Unit, Report No. 95.4, Olympia, WA.
- Niemeier, D. (1995). Analysis of bicycle counts from the Puget Sound Area and Spokane, Washington State Transportation Commission Innovations Unit, Report No. 95.3, Olympia, WA.
- Reed, T., D. Niemeier, S. Rutherford (1995). Prioritization of capacity improvements, Final Report, RP-T9233, Washington State Transportation Department, June, Olympia, Washington.
- Niemeier, D., S. Rutherford (1992). Project prioritization: A new evaluation process for statewide project programming, Phase 1, Technical Report, Washington State Transportation Department, June, Olympia, Washington.

PARTIAL LIST OF EXTRAMURAL FUNDING (PI UNLESS NOTED)

Current Projects

- NRT-IGE: *Data Science for the Built Environment*, National Science Foundation, \$478,091
- Validating the Effects of Collaborative Partnering On Major Capital Projects*, California Department of Transportation, \$270,000
- Expert Review, Next Generation Mobile Source Emissions Model*, California Air Resources Board, \$100,000
- Participatory Mapping to Inform Agricultural Decisions* CITRIS Seed Funding, \$60,000 (co-PI)
- High Impact Prioritization of Bike Share Program Investment to Improve Underserved Communities' Access to Jobs and Essential Services*, National Center for Sustainable Transportation, \$80,000
- The Effect that State and Federal Housing Policies on Vehicle Miles of Travel*, National Center for Sustainable Transportation, \$78,742

Completed Projects (~\$8 million in funding, please ask for full list)

- Workshop on Climate Change Governance (Current)* National Science Foundation, \$49,000
- California Transportation: Climate Change Hotspots and Adaptation Evaluation*, the California Department of Transportation, \$354,000
- Capay Valley Energysched*, \$382,000, Yoche Dehe Wintun Indian Nation, The Capay Valley Energysched
- GIS Locomotive Inventory*, \$130,000, California Air Resources Board
- UC Davis-Caltrans Air Quality Project (Cum. Program ~\$4,900,000)
- Capital Outlay Support* \$138,000, A Framework for Measuring Caltrans Labor Productivity, California Department of Transportation
- Regional Development, Population Trends, and Technology Change Impsharonacts on Future Air Pollution Emissions*, Environmental Protection Agency, \$700,000, Co-PIs: D. Niemeier, S. Handy
- A New Model for Producing Highly Resolved Mobile Source Emissions, National Science Foundation, \$300,000
- Development of a MEMs Ambient PM Sampler*, California Air Resources Board Technology Development Program, \$250,000, Co-PIs: N. Tien, A. Wexler, B. Holmen
- ADVANCE Leadership: Stepping up the Academic Ladder: Examining the Progress of Women as Science and Engineering Department Chairs*, National Science Foundation, \$200,000
- Women in Engineering Leadership Conference*, National Science Foundation, \$91,000.
- IGERT: Nanophases in the environment, agriculture, and technology, National Science Foundation (PI: A. Navrotsky, Co-PI's: D. Niemeier *et al*), \$1.3m

Mobile Source Travel Activity Data Collection and Modeling for Central California Ozone Study, California Air Resources Board, \$600,000.

Physical and Chemical Characterization of Ultra-Fine and Nanoparticle Matter Emissions From Gas and Diesel On-road Vehicles, California Air Resources Board, \$501,000 (PI: Britt Holmen, Co-PI: D. Niemeier).

Estimating Statewide Unpaved Roads Travel Activity for Air Quality Models, California Air Resources Board, \$90,000.

Experimental Design for Collection of Mobile Emissions Travel Activity for the Central California Ozone Study, California Air Resources Board, \$25,000.

Estimation of Summer 98 Allocation Factors for South Coast Air Basin, California Air Resources Board, \$18,000.

Data Collection of Travel Activity – 1997 South Coast Ozone Study, California Air Resources Board, \$65,000 (Phase 1), \$185,000 (Phase 2, National Renewable Energy Laboratory)

Modeling Travel Activity on Unpaved Roads, California Air Resources Board, \$73,850.

Exploratory Analysis: A Method to Improve the Link Between Travel Demand Models and DTIM, California Air Resources Board, \$86,000.

URI: Emerging Urban Systems: Competing Land Uses, and the Effects on Built and Natural Environments, National Science Foundation, \$380,000.

Linking Undergraduates to Research on the Environment, (PI: Jeannie Darby, Co-PI's: Britt Holmen, Deb Niemeier), Research Experience for Undergraduates, National Science Foundation, \$249,800.

CAREER: Optimizing Transportation Infrastructure Longevity: Engineering Based Allocation of Resources (1997-03), National Science Foundation, \$214,214.

CAREER Matching Funds: Optimizing Transportation Infrastructure Longevity: Engineering Based Allocation of Resources (1997-02), National Science Foundation, \$100,000.

CAREER Undergraduate Researcher Funding: Optimizing Transportation Infrastructure Longevity: Engineering Based Allocation of Resources (1997-02), National Science Foundation, \$10,000.

Completion and Implementation of CO Protocol, California Dept. of Transportation, \$60,000

The effect of LOS D intersection configurations on CO emissions, California Dept of Transp., \$18,000.

Speed Correction Curves, California Dept. of Transportation, \$95,000/\$50,000.

Expert Review and General Assistance, California Department of Transportation, \$15,000.

Model Projects: Enhancing the Educational Environment and Opportunities for Women in Engineering, Mathematics, and Science, Alfred P. Sloan Foundation, \$525,000.

Welfare to Work Travel Study, Sacramento County Department of Human Assistance, \$23,000.

Fixed Route and Paratransit Services: A Comparison of Accessibility, UCTC, \$30,000.

Neighborhood Microlevel Accessibility Measures, UCTC, \$42,000.

Is There a Case for Public Investment in Telecommuting? A Cost/Benefit Analysis, (PI: Pat Mokhtarian, Co-PI: D. Niemeier), PATH, \$45,617.

Prioritization of Capacity Improvements, Oregon Department of Transportation, \$180,000.

Cost-Benefit Analysis: A Case Study, Federal Highway Administration, Oregon Dept of Transportation, \$25,000.

Community Based Economic Analysis of Trucking Facilities, California Trucking Association, \$15,000.

The Elderly and Paratransit Services, Daimler-Benz, \$5,000.