

ROBERT A. JOHNSTON
Professor Emeritus, Department of Environmental Science and Policy
University of California, Davis 95616
(415) 663-8305 (phone), (530) 559-0032 (cell)
rajohnston@ucdavis.edu

EDUCATION

University of Nevada, Reno, Master of Science in Renewable Natural Resources (1974)
University of Southern California, Master of Urban and Regional Planning (1969)
Dartmouth College, Bachelor of Arts in Art History/Architecture (1967)

SELECTED PROFESSIONAL SERVICE

Professor Emeritus, Department of Environmental Science and Policy, University of California, Davis, 2005-present
Assistant Professor, Associate Professor, and Professor, Department of Environmental Science and Policy, University of California, Davis, 1971 – 2005
Associate Planner, Raymond M. Smith and Associates, Reno, NV, 1969 – 1970

PROFESSIONAL EXPERIENCE

Robert A. Johnston is a Professor Emeritus at the Department of Environmental Science and Policy of the University of California, Davis. His major interests lie in transportation and land use modeling, open space and terrestrial habitat protection, and regional planning support systems. Prior to his retirement, Professor Johnston taught courses in environmental planning, land use controls, environmental impact assessment, and urban modeling. He was recently a member of a National Academy of Sciences committee on regional travel modeling practice in the U.S. Prof. Johnston has been a member of state and regional advisory committees for transportation and air quality planning agencies and a local transportation commission. He has provided planning support to the California Blueprint processes for about 25 counties, using the GIS-based urban growth model UPlan. He worked at the assessment of integrated transportation/land use models for the California Department of Transportation in 2005. Since 2006, he has worked at the development of the Statewide Integrated Model for California, CalSIM, and the California Statewide Travel Demand Model, CSTDM. He reviews articles and grant proposals for several organizations and has published over 100 refereed articles and book chapters. He has given invited talks at many conferences and universities and has been a faculty member in residence at the University of Iowa. He was a member of the TRB Transportation and Land Development Committee, the NAS Committee on the Determination of the State of Practice of Metropolitan Travel Modeling, and was a Town Planning Commissioner in Truckee, CA. He is also a member of the Board of Directors of the Sierra Nevada Conservancy, a State agency that funds sustainable development in this region.

SELECTED RECENT PUBLICATIONS

Giovanni Circella, Robert A. Johnston, Andrew J. Holguin, Eric W. Lehmer, Yang Wang, and Michael McCoy, Updating the PECAS Modeling Framework to Include Energy Use Data for Buildings, Public Interest Energy Research (PIER) Program Interim Project Report, for California Energy Commission, University of California Davis, Urban Land Use and Transportation Center, February, 2013.

Robert A. Johnston, Michael C. McCoy, John Douglas Hunt, and John Abraham, Integrated Urban Modeling in Support of Environmental Justice and Sustainable Communities Planning in California, presentation at the TRB Annual Meeting, January 23-27, 2011.

Gao, Shengyi, Patricia L. Mokhtarian, and Robert A. Johnston (2008) "Exploring the causal connections among job accessibility, employment, income, and auto ownership with structural equation modeling". The Annals of Regional Science, **42(2)**, 341-356.

Gao, Shengyi, Patricia L. Mokhtarian, and Robert A. Johnston (2008) "Non-normality of data in transportation behavior studies". Transportation Research Record, **2082**, 116-124.

Johnston, Robert A. (2008) "Indicators for Sustainable Transportation Planning". Transportation Research Record, **2067**, 146-154.

Walker, Thomas W., Shengyi Gao and Robert A. Johnston (2007) "UPlan: Geographic Information System as Framework for Integrated Land Use Planning Model". Transportation Research Record, **1994**, 117-127.

- Thorne, James H., Shengyi Gao, Allan D. Hollander, Jeffery A. Kennedy, Michael McCoy, Robert A. Johnston, and James F. Quinn (2006) "Modeling Potential Species Richness and Urban Buildout to Identify Mitigation Sites along a California Highway". *Transportation Research Part D: Transport and Environment*, **11(4)**, 277–291.
- Clay, Michael J. and Robert A. Johnston (2006) "Large Developments, Spatial Uncertainty, and Integrated Land Use and Transportation Modeling". *Transp. Planning and Technology*, **29(6)**, 427-444.
- Clay, Michael J. and Robert A. Johnston (2006) "Multivariate Uncertainty Analysis of a Fully Integrated Land Use and Transportation Model: MEPLAN". *Transportation Research Part D: Transport and Environment*, **11(3)**, 191-203.
- Clay, Michael J. and Robert A. Johnston (2005) "Univariate Uncertainty Analysis of a Fully Integrated Land Use and Transportation Model: MEPLAN". *Transp. Planning and Technology*, **28(3)**, 149-165.
- Johnston, Robert A., Shengyi Gao, and Michael J. Clay (2005) "Modeling Long-Range Transportation and Land Use Scenarios for the Sacramento Region, Using Citizen-Generated Policies". *Transportation Research Record*, **1902**, 99-106.
- Merenlender, A. M., Brooks, C., Shabazian, D., Gao, S., and R. A. Johnston (2005) "Forecasting exurban development to evaluate the influence of land-use policies on wildland and farmland conservation." *J. of Conservation Planning*, **1(1)**, 64-88.
- Johnston, Robert A. (2004) "The Urban Transportation Planning Process". Book chapter for *The Geography of Urban Transportation*. Ed. by Susan Hanson and Genevieve Guiliano, 2004.
- Johnston, Robert A. et al. (2003) "UPlan: A Versatile Urban Growth Model for Transportation Planning". *Transportation Research Record*, **1831**, 202-209.
- Johnston, Robert A. and Gordon Garry (2003) "Sustainable Development Planning Tools: A Suite of Models Useful in Large Metropolitan Regions". *Transportation Research Record*, **1848**, 132-136.
- Rodier, C. J., Johnston, R. A., and Abraham, J. E. (2002) "Heuristic policy analysis of regional land use, transit, and travel pricing scenarios using two urban models". *Transportation Research Part D: Transport and Environment*, 243-254.
- Johnston, Robert A., Caroline J. Rodier, John E. Abraham, and John Douglas Hunt (2001) "Applying An Integrated Model to the Evaluation of Travel Demand Management Policies in the Sacramento Region: Year Two". *Mineta Transportation Institute, San Jose State University, CA. MTI Report 01-08*.
- Rodier, C. J. and R. A. Johnston (2002) "Uncertain socioeconomic projections used in travel and emissions models: could plausible errors result in air quality nonconformity?" *Transportation Research Part A*, 613-631.
- Hunt, J.D., R.A. Johnston, J.E. Abraham, C.J. Rodier, G. Garry, S.H. Putman, and T. de la Barra (2001) "Comparison from the Sacramento Model Testbed". *Transportation Research Records*, 53-63.
- Johnston, Robert A. and Tomas de la Barra (2000) "Comprehensive Regional Modeling for Long-Range Planning: Integrated Urban Models and Geographic Information Systems". *Transportation Research Part A*, 125-136.