Northwestern University
Transportation Center Seminar Series

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Integrating Land Use and Activity-based Transport Modeling: a Framework and Application to San Francisco

Thursday, Nov. 15, 2007
4:00 – 5:00 pm
Refreshments available at 3:30 pm

Location:
The Transportation Center
Chambers Hall, Lower Level Conference Center
600 Foster, Evanston

Abstract: Although there has been considerable recent advancement in research on modeling the location of urban activities and real estate (aka land use), and on the analysis of travel behavior using an activity-based approach, there is relatively little experience in developing operational models at a substantial scale, and even less work has been done to integrate them. This talk will discuss the development of a parcel and building level land use model based on the UrbanSim model system, and its integration with one of the few operational tour-based travel models, in San Francisco. The discussion will cover the model design, specification, and estimation results, as well as preliminary work on model validation. It will also address the broader research context of this project, to develop more integrated analysis and modeling of household long-term and short-term choices.

Bio: Paul Waddell is a Professor in the Evans School of Public Affairs and in the Department of Urban Design and Planning at the University of Washington. He holds Adjunct appointments in the Department of Civil and Environmental Engineering and in the Department of Geography. Professor Waddell is the Director of the Center for Urban Simulation and Policy Analysis, and also directs the Ph.D. Program in Public Policy and Management at the University of Washington.

His research over the past several years has focused on the interactions of land use and transportation and on the combined analysis of the effects of transport investments and land policies. This research agenda has included the ongoing development of the UrbanSim model system and its application in multiple metropolitan areas in the United States and abroad, with funding from the NSF Digital Government, Information Technology Research, Biocomplexity, and Robust Intelligence programs, as well as from EPA and from Metropolitan Planning Agencies. His most recent publications have appeared in the Journal of Urban Economics, Transportation Research A, and Transportation Research B in 2007.