Bruce Podwal Seminar Series

Modeling Long Distance Travel in an Age of Global Mobility

Tuesday March 7, 2017
12pm in the Civil Engineering Conference Room (ST-105)

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Abstract

Despite decades of calling for better and more comprehensive demand models of long distance and intercity travel, researchers and practitioners remain largely focused on daily travel within home regions. Sophisticated models, often driven by household activity patterns, are used to simulate multimodal trip tours within our large metropolitan regions, while arrivals and pass-through traffic from out-of-region and out-of-country are considered as aggregate exogenous factors. But long-distance travel in the United States is estimated to include more than 2.6 billion trips annually and has profound implications for infrastructure, economy, equity, and environment. Its importance will only increase as US mega-regions grow and both interstate highway and airport congestion continue to emerge.

Dr. Aultman-Hall’s seminar opens by reflecting on the history of global long-distance travel and moves on to discuss how the motivators of travel combine with the 21st century telecommunication and transportation systems are now suggesting troubling growth projections. The data sources needed to model this travel behavior on an individual level are very limited. But the seminar draws on a range of unique recent data sources, including surveys and mobile phone traces, to describe existing patterns of long distance travel. These results, mainly describing residents of Vermont, Alabama and California, suggest concerning policy implications in terms of environmental impacts as well as social equity in access to intercity mobility.

Biography

Dr. Lisa Aultman-Hall is a Professor of Civil and Environmental Engineering at the University of Vermont. Her research focuses on collection of innovative data to study long distance travel, tailpipe emissions, and bicycling as well as modeling system resiliency especially as it relates to planning for climate adaptation. Dr. Aultman-Hall is active with the Transportation Research Board of the National Academies including a task force on national travel data needs and recently starting a new subcommittee on inter-city travel. Dr. Aultman-Hall is one of the Associate Directors of the National Center for Sustainable Transportation a USDOT UTC led by the University of California Davis.

Light refreshments will be served.