"Leveraging open data for measuring and optimizing equity and efficiency in public transportation systems"

Nicholas E. Lownes, PhD, PE
F.L. Castleman Associate Professor in Engineering Innovation,
Department of Civil and Environmental Engineering
Director, Center for Transportation and Livable Systems,
University of Connecticut

Tuesday April 8, 2014
12:10 – 1 PM Steinman Exhibit Room

Abstract

There is a great deal of potential for public transportation systems in the communications technology boom. The number of systems boasting real-time tracking application, automated passenger counters and other sensing technology continues to grow tremendously. The challenge for many agencies is harnessing the benefit of this data deluge for daily operations and long-term planning. With most systems receiving substantial subsidy from local, state or national governments there is often little room for experimentation with new technology or methods. In Connecticut, the public transportation system is centralized to a much higher degree than most other states – due largely in part to the size of the state (it is roughly the same size as Seattle, Washington). This centralization has yielded an opportunity to look at statewide system management holistically and create an environment for researchers, planners and operators to work collaboratively. A public transportation database system, t-HUB, has been developed to help Connecticut better manage and plan its system for both equity and efficiency. This talk will present results of t-HUB development and the models and tools being integrated into this database system.

Biography

Nicholas Lownes is an Associate Professor of Civil and Environmental Engineering at the University of Connecticut. He earned his PhD from UT Austin and joined the faculty at UConn in August 2007. In 2010 he became director of the Center for Transportation and Livable Systems. In 2012 he was named F.L. Castleman Professor in Engineering Innovation. His primary research interests are in public transportation systems and network modeling. He has published over 60 papers in refereed journals and proceedings. His recent research efforts have focused on t-HUB: a collaborative database initiative including researchers from engineering, computer science, geography and the library. His team is working to build analytical tools for evaluating performance of public transportation systems, including traditional operational measures and new system measures such as resilience and equity.

Refreshments will be served