“Cost Recovery from Congestion Tolls with Long-run Uncertainty”

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Thurs. Feb. 28, 2013
4:00 – 5:00 pm
Location:
Transportation Center
Chambers Hall – 600 Foster
Ruan Conference Center
Refreshments available at 3:30 pm

Abstract
According to the seminal Cost Recovery Theorem the revenues from congestion tolls pay for the capacity costs of an optimal-sized facility if capacity is perfectly divisible, and if user costs and capacity costs have constant scale economies. This paper extends the Theorem to long-run uncertainty about investment costs, user costs, and demand. It proves that if constant scale economies hold at all times and in all states, and if the toll can be varied freely over time and by state, then expected discounted toll revenues cover expected discounted investment costs over a facility's lifetime. If the marginal cost of investment is constant and investment is reversible, then expected cost recovery is also achieved for each investment. Cost recovery is quite sensitive to estimated initial demand, and moderately sensitive to the estimated growth rate of demand. Natural variability in demand can result in substantial surpluses or deficits over a facility's lifetime.

Bio
Robin Lindsey earned BA and MA degrees from Queen's University and a PhD in economics from Princeton. From 1982 to 2010 he worked in the economics department at the University of Alberta. Since 2010 Lindsey has held the CN Chair in Transportation and International Logistics at the Sauder School of Business at UBC. His research interests include road pricing, traffic congestion models, financing roads, urban public transportation and advanced traveler information systems. He is a founding board member of the International Transportation Economics Association (http://www.iteaweb.org), an Associate Editor of Transportmetrica, and a member of the editorial boards of Economics of Transportation, International Journal of Sustainable Transportation, Journal of Urban Economics, Transport Policy, and Transportation Research Part B. He is also a coeditor of Handbook in Transport Economics which was published in 2011 by Edward Elgar.