Is the Curb 80% Full or 20% Empty? Assessing the Impacts of San Francisco's Parking Pricing Experiment

Robert C. Hampshire, PhD
Transportation Research Institute
University of Michigan

Abstract

The city of San Francisco is undertaking a large-scale controlled parking pricing experiment. San Francisco has adopted a performance goal of 60% to 80% occupancy for its metered parking. The goal represents an heuristic performance measure intended to reduce cruising for parking, and improve the driver experience; it follows a wave of academic and policy literature that calls for adjusting on-street parking prices to achieve similar occupancy targets. In this paper, we evaluate the relationship between occupancy rules and metrics of direct policy interest, such as the probability of finding a parking space, the amount of cruising, and show how cruising and arrival rates can be simulated or estimated from hourly occupancy data. Further, we evaluate the impacts of the first two years of the San Francisco program, and conclude that rate changes have helped achieve the city's occupancy goal and reduced cruising by 50%.

Refreshments will be served in Daniels Hall room 428
Student Lounge from 11:00 a.m. to 11:30 a.m.
Biography

Robert C. Hampshire is an Assistant Research Professor at University of Michigan's Transportation Research Institute (UMTRI). He was previously an assistant professor of Operations Research and Public Policy at the H. John Heinz III College at Carnegie Mellon University. He received a PhD in Operations Research and Financial Engineering from Princeton University in 2007. His research focuses on management, modeling, and optimization of services. His work considers mobility services such as smart parking, connected vehicles, ride sharing, bike sharing, car sharing and person-2-person car sharing. This work is supported by the National Science Foundation, Department of Transportation and several non-profit foundations. He uses stochastic modeling, simulation and dynamic optimization to develop design and management strategies. More specifically, his methodological interests are: Dynamic control of transient stochastic systems, Queueing Networks with Time-Varying Rates, and Asymptotic Approximations (Strong Approximations).