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Centre for Transportation Research of Department of Civil and Environmental Engineering

## **Slow Streets and Dockless Travel: Using a Natural Experiment for Insight into the Role of Supportive Infrastructure on Non-Motorized Travel**

by

**Professor Marlon Boarnet**

Department of Urban Planning and Spatial Analysis  
The University of Southern California

Host: Prof Meng Qiang, Director of Centre for Transport Research (CTR) of CEE

**Date:** 8 May 2023, Monday

**Time:** 3 pm – 5 pm

**Venue:** E1-06-08

National University of Singapore  
College of Design and Engineering  
3 Engineering Drive 2,  
Singapore 117578



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**\*\*\*Seats are limited. Please register early. All are welcome and admission is free\*\*\***

### **Abstract**

In the early stages of the COVID-19 pandemic, cities across the globe converted street space to non-automobile uses. This project studies four of these slow street programs in the U.S.: in Los Angeles, Portland, Oakland, and San Francisco. In each city, the slow streets (implemented in late spring to early fall 2020) are used as a treatment and compared to non-implemented control groups. The dependent variable is counts of dockless scooter trips passing a mid-block screenline for time periods both before and after slow street implementation. Those dockless scooter counts were obtained from historical data provided by Lime, a dockless scooter provider in each of the study cities. Two methodological approaches were used: differences-in-differences (DID) and panel regression analysis with block fixed effects. For the DID analysis, the researchers used networks of candidate slow streets that were not implemented as the control group. Such control networks were available in Los Angeles, Oakland, and San Francisco. For the panel analysis, they used slow street segments implemented later in the study period as control segments for earlier implemented slow street segments, including fixed effects for blocks and for time periods in the panel regressions. The findings show statistically significant associations between increased dockless scooter trips and slow street implementation in each study city, using both DID and panel analyses. The associations are robust to different specifications. The authors calculate the magnitude of the slow street treatment effect by dividing the estimated treatment effect by a 2019 baseline of dockless trip counts. In the DID analysis, they find that slow street implementation increased dockless scooter trip counts from 54.78% to 74.5%, relative to a 2019 (before slow streets) baseline. In the panel analysis, the increase in dockless trip counts on slow streets ranged from 10.77% to 16.75%, relative to a 2019 baseline.

## Speaker's Biography



Dr. Marlon Boarnet is Professor in the Sol Price School of Public Policy at the University of Southern California and Director of the METRANS Transportation Consortium. METRANS is the center for transportation research at USC, and a partnership of the Price School of Public Policy, the Viterbi School of Engineering, and California State University – Long Beach. Prior to directing METRANS, Boarnet was the founding chair of the Department of Urban Planning and Spatial Analysis at USC (2016-2022) and he served as Vice Dean for Academic Affairs in USC's Price School from 2014 through 2015. Boarnet served as president of the Association of Collegiate Schools of Planning from 2019-2021.

Boarnet's research focuses on land use and transportation, links between land use and travel behavior and associated implications for public health and greenhouse gas emissions, urban growth patterns, and the economic impacts of transportation. He is a fellow of both the Weimer School of the Homer Hoyt Institute for Real Estate and the Regional Science Association International. Boarnet has advised California state agencies on greenhouse gas emission reduction in the transport sector, the World Bank on transportation access as a poverty reduction tool, and numerous other public and private entities. Boarnet's academic web page is: <https://priceschool.usc.edu/people/marlon-boarnet/>.

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### Map of Seminar Room E1-06-08, 3 Engineering Drive 2, Singapore 117578

Seminar Room (E1-06-08) is on floor 6.

