

DISSERTATION PROPOSAL

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“Essays in Urban Economics and Industrial Organization”

Thursday, November 21, 2024
10:30am
Tepper 4242

Chapter 1: Online School Ratings and the Housing Market

School quality is a key driver of housing decisions, and online school ratings providing a free and public signal of school quality for home buyers and sellers. This chapter examines the effects of a major change in rating methodology by GreatSchools, the market-leading rating agency. We leverage the methodological shift to identify willingness-to-pay for school quality and biases in school ratings. Using Zillow data from three metropolitan areas, we find that housing prices respond to perceived changes in school quality, providing evidence on how online school ratings affect real estate values and social equity. Furthermore, structural estimates suggest that the new rating methodology reduces both bias and idiosyncratic errors, thus providing a better proxy for school quality. However, school ratings still strongly correlate to the market's priors: the bias parameter (normalized to 0-1) only decreased from 0.98 to 0.81.

Chapter 2: Work-from-home and the Decline of City Center (joint with Tuyet-Anh Tran)

The shift to work-from-home is frequently postulated as a key factor behind retail businesses leaving city centers. We combine novel data sources to quantify the effect of work-from-home trends on the retail businesses in San Francisco, weighing its importance against other factors such as safety issues. We build an equilibrium model of demand for amenities by office workers and supply of amenities using foot traffic as production input. We plan to estimate the demand model using mobile data on visits to establishments from 2018 to 2022, and the supply model using San Francisco's business registration data. We then simulate counterfactual foot traffic and supply of amenities under current work-from-home trends, offering evidence on their isolated effect.

Chapter 3: Parking in the City (joint with Tuyet-Anh Tran)

Parking is a long-time urban issue, with mismatch between supply and demand often leading to excessive "cruising" for parking spaces. Using parking and foot-traffic data from San Francisco, we find evidence that parking matters for decisions to visit retail establishments, which motivates our joint modelling of destination and parking decisions. As counterfactuals, we evaluate the implementation of parking policies in San Francisco and other major cities. A promising policy is the demand-based pricing which adjusts rates conditioning on *expected availability*, instead of conditioning on *average occupancy* as the current policy.

Proposed Committee: Robert A. Miller (Chair), Rebecca Lessem, Anh Nguyen, and Kannan Srinivasan (external reader)

Proposal Documents: Link to chapters:

<https://www.dropbox.com/scl/fo/16ith4lsao3qvoj97lybv/AOJJDm94ZHK3V-anbL04-10?rlkey=1qww5w4zqsx8f9d3q3dwjqa5r&st=mm3fifeb&dl=0>