

# Michael Shashoua

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Dept. of Economics MS-22  
Rice University  
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## EDUCATION

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Ph.D. in Economics, Rice University (Anticipated) May 2019  
GPA: 3.97/4

M.A. in Economics, University of Pennsylvania May 2014

B.A. in Business Administration (*Cum Laude*), University of Southern California May 2012  
Minor in Communication Law and Media Policy

## DISSERTATION COMMITTEE

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Prof. Jeremy Fox (**Chair**)  
Department of Economics  
Rice University  
(734) 330-2854  
fox@rice.edu

Prof. Antonio Merlo  
Department of Economics  
Rice University  
(713) 348-4824  
amerlo@rice.edu

Prof. Vikas Mittal  
Jones Business School  
Rice University  
(713) 348-6234  
vm2@rice.edu

## RESEARCH FIELDS

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Primary: Industrial Organization, Marketing  
Secondary: Applied Econometrics

## SCHOLARSHIPS, HONORS, AND AWARDS

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Lack Fellowship of Economics 2014-Present  
Inaugural recipient of new fellowship at Rice University

Fulbright Grant Recipient to Spain 2012-2013  
Selected as 1 of 26 recipients in the United States as a Graduate Fellow in Madrid. Explored credit access for small to medium enterprises (SMEs) and entrepreneurial support for new ventures

Global Scholar Award Recipient 2012  
Recognized as a top 10 graduating senior at USC who has excelled in studies at home and abroad

## RESEARCH PAPERS

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*Private Labels, Famous Brands, and Heterogeneous Households:  
Can High Ad Spending be Justified and are Households' Advertising Elasticities Stable Across Products?*  
**Job Market Paper**  
(with Jeremy Fox and Stefan Hoderlein)

This paper estimates the correlation of household advertising elasticities across various brands of chocolate and laundry detergent. We leverage a unique data set consisting of matched ad views and household purchases across a two year period. This data allows us to address endogeneity issues such as the correlation

between ad exposure and household ad elasticities and the distinction between unobserved heterogeneity and state dependence. We extend the dynamic panel methods of Arellano and Bond (1991) to allow time varying random coefficients that can be correlated with regressors (advertising exposure) and correlated across equations in a SUR (seemingly unrelated regressions) system. We also address two specific puzzles. The first involves the high advertising spending in these industries, which we estimate to be well above the Dorfman-Steiner level of optimal spending. The second looks at the strength of the private labels (store brand) and why consumers purchase them despite their lack of television advertising.

*Safety in Numbers? An Analysis of Market Concentration and Safety in the Commercial Railroad Industry*  
(with Vikas Mittal and Shrihari Sridhar)

In this paper, we examine the relationship between market concentration and safety incidents in the freight railroad industry in the United States. We measure safety incidents as the number of accidents and market concentration as the Herfindahl Hirschman Index. We test the model in the context of the commercial railroad industry, using a comprehensive data set spanning 40 years. We systematically control for correlated unobservables, and the results consistently indicate that a 1% increase in market concentration yields an approximately .4% decrease in the number of accidents. These results are robust to different measures of concentration, various time aggregations, and numerous model specifications. Furthermore, using bootstrapping techniques, we show that the relationship between safety and market concentration is mediated by the level of investment in capital expenditures, the total number of employee hours, and the amount of freight switching between railroad companies. An important implication of this study is that mergers may provide substantial value by reducing the number of accidents. These findings are relevant for firms, regulators, and consumers across all industries that suffer from safety incidents.

*Selection Model of School Choice*

In this paper, I create a model of school choice with endogenous selection. This paper shows that a general model of selection is identified without any additional assumptions from the standard school choice framework. I perform a monte carlo to show that this model pins down the correct parameter values, while not incorporating selection may severely bias the estimates. Furthermore, I present a potential counterfactual where an alternative is removed, and the model with selection is able to correctly predict the results. Incorporating selection is essential for school choice research, and this paper provides a framework to study it.

*Competition and Service Quality: The Role of Coordination Costs*  
(with Vikas Mittal and Shrihari Sridhar)

This study analyzes the impact of competition on various measures of service quality. The context is a quasi-experiment in which unexpected regulation increases costs and leads to firm exit in some markets. We propose a difference-in-differences framework to study the effect in the Railroad industry and we repeat our analysis in the Commercial Airline industry. An important insight is that both these industries operate on a shared network, and when more firms operate the coordination costs for the market will increase as well. We provide intuition for coordination's effect through adaption of a model by Shaked and Sutton (1983). Across both industries, the results show that a market quality increases as the number of firms decrease. In particular, changes in the coordination costs and the strength of the remaining firms appear to drive our results. We discuss the managerial implications of our findings and explain how they enrich and qualify previous results reported in the literature on product quality and competition. Furthermore, the results show that consumer advocates and regulators can look to target quality improvements through market structure.

*Customer Lifetime Value in a Medical Context*

(with University of Texas Southwestern Medical Center, Jones Business School at Rice University, Mays Business School at Texas A&M University)

This study looks at maximizing customer lifetime value (CLV), which in the medical context relates to quality

years of life. We leverage a novel medical data set of a randomized control trial of 1800 patients. We then apply a CLV model to analyze the benefit of different interventions on patient response. The interventions differ in the initial level of information provided to patients at risk of a hepatocellular carcinoma (HCC). The results show that information significantly increases the CLV through both a higher initial screening rate and dynamic effects in later periods.

## TEACHING AND RESEARCH EXPERIENCE

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**Teaching Assistant**, Rice University Fall 2014–Present

Graduate: Microeconomic Theory, Computational Economics

Undergraduate: Managerial Economics, Applied Econometrics

**Research Assistant**, Rice University 2016-2017

Professor Jeremy Fox, multiple projects spanning banking, decentralized matching, and big data analytics using lasso and kernel regressions

**Research Assistant**, Rice University 2015-2016

Professors Antonio Merlo and Xun Tang, joint project on structural estimation of bargaining models with heterogeneous beliefs concerning medical malpractice litigation

## PROFESSIONAL ACTIVITIES

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**Cornerstone Research**, Summer Associate 2018

Supported academic and industry experts advising a large healthcare industry merger, including the anticipation of DOJ concerns and preparing the response. Identified relevant data and methods, directed team in performing analysis and writing reports defending approach. Led team of analysts and managed exhibit production

**United Nations**, Economic Consultant 2014-2018

Collaborated with economists at the United Nations to release reports detailing growth and equality for the Economic and Social Commission for Asia and the Pacific. Conducted research on causes of economic polarization for the International Trade Division of the United Nations Conference and Trade and Development in Geneva, Switzerland. Research was featured in high-level consultation on financing for development

**Houston Education Research Consortium**, Doctoral Student Researcher 2015-2017

Advised Houston Independent School District Board on moving to centralized school choice mechanism  
Led restructuring of magnet school application process which affects over 20,000 students each year

**Fulbright Commission España**, Fulbright Grant Recipient to Spain 2012-2013

Collaborated with the Universidad Autónoma de Madrid (Autonomous University of Madrid) and the Instituto Crédito Oficial de España (Official Credit Agency of Spain) to expand access and information on microbanking

Nominated as the sole representative from Fulbright Spain, and 1 of 35 from around the world, to attend a weeklong EU/NATO seminar related to challenges in the European Union

**Guggenheim Partners LLC**, Intern 2011

Worked directly with head of a new \$500 million fund for asset backed financing of private jets  
Maintained critical client relationships and served as liaison for government committee on bonds

## ADDITIONAL INFORMATION

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**Coding:** High level proficiency in Stata, R, MATLAB, Python, and Julia

**Languages:** Fluent Spanish