

# SONIA JAFFE

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## References:

Professor Steven Levitt University of Chicago slevitt@uchicago.edu	Professor Roland Fryer Harvard University rfryer@fas.harvard.edu	Professor Casey Mulligan University of Chicago c-mulligan@uchicago.edu
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Professor Kevin Murphy  
University of Chicago  
kevin.murphy@chicagobooth.edu

## Current Employment:

2015– Postdoctoral Scholar, *University of Chicago*

## Education:

2015 Ph.D. in Economics, Harvard University  
Dissertation: “*Heterogeneity in Markets and Games*”  
Dissertation Committee: David Cutler, Roland Fryer, Edward Glaeser,  
Nathaniel Hendren, David Laibson

2012 M.A. in Economics, Harvard University

2008 B.A. in Economics, University of Chicago  
Economics Honors BA Thesis: *Iterative Thinking by Facebook Users*  
GPA: 3.96/4.00

## Teaching and Research Fields:

*Primary Field:* Applied Microeconomics

*Secondary Fields:* Public Finance, Industrial Organization, Health Economics

## Teaching and Advising Experience:

2012-2013 *Price Theory* (Graduate microeconomics), University of Chicago  
Teaching assistant for Professors Gary Becker and Kevin Murphy

2011-2012 Department of Economics, Harvard University  
Concentration advisor for undergraduates

## Publications:

“How does technological change affect quality-adjusted prices in health care? Evidence from thousands of innovations” (with K. Hult and T. Philipson). *American Journal of Health Economics* (Forthcoming).

“Inequity and unequalness in health,” *More fair by design: Economic design responses to inequality* Ed. Scott Kominers, Ed. Alexander Teytelboym. (Forthcoming).

“To Groupon or not to Groupon: The profitability of deep discounts” (with B. Edelman and S. D. Kominers). *Marketing Letters*, vol. 27, no. 1, 2016.

“The first-order approach to merger analysis” (with E. G. Weyl). *American Economic Journal: Microeconomics*, vol. 5, no. 4, 2013.

“Discrete choice cannot generate demand that is additively separable in own-price” (with S. D. Kominers) *Economics Letters*, vol. 166, no. 1, 2012.

“Price theory and the merger guidelines” (with E. G. Weyl). *CPI Antitrust Chronicle*, vol. 3, no. 1, 2011.

“To Groupon or not to Groupon: New research on voucher profitability” (with B. Edelman and S. D. Kominers). *Harvard Business Review [Blog]*, 2011.

“Linear demand systems are inconsistent with discrete choice” (with E. G. Weyl). *Berkeley Electronic Journal of Theoretical Economics: Advances*, vol. 10, no. 1, 2010.

### **Work in Progress:**

(Available at [www.soniajaffe.com/research.html](http://www.soniajaffe.com/research.html))

“Quality Externalities on Platforms” (with P. Coles, S. Levitt, I. Popov), *Job Market Paper*.

In order to screen out low-quality sellers and incentivize higher quality, platforms need a good measure of seller quality. Having high-quality sellers is particularly important if buyers on a platform have limited information about the sellers; buyers’ learning means that the quality of a seller in any given transaction can affect whether and how frequently that buyer returns to the platform. The number of times that a seller’s buyers return to the platform is an externality that the seller exerts on other sellers on the platform; we propose using this externality to measure seller quality. Using data from Airbnb, a peer-to-peer accommodation platform, we calculate each listing’s *guest return propensity* (GRP), defined as the average number of subsequent bookings a listing’s guests complete, controlling for guest and trip characteristics. There is substantial variation in GRP across listings and its correlation with a listing’s average rating is only .05. Using an instrumental variable analysis to account for unobservable guest characteristics, we find that our measure of GRP has a causal effect on returns: a one standard deviation increase in GRP causes guests to take an additional .34 trips (a 17% increase). We discuss how platforms can increase overall seller surplus by directing buyers towards higher quality sellers, either by using Pigouvian subsidies for quality or by prioritizing high-quality sellers in their search algorithms.

“Price-linked subsidies and health insurance markups” (with M. Shepard).

Subsidies in many health insurance programs depend on prices set by competing insurers as prices rise, so do subsidies. We study the economics of these “price-linked” subsidies compared to “fixed” subsidies set independently of market prices. We show that price-linked subsidies weaken competition, leading to higher markups and raising costs for the government or consumers. However, price-linked subsidies have advantages when insurance costs are uncertain and optimal subsidies increase as costs rise. We evaluate this tradeoff empirically using a model estimated with administrative data from Massachusetts’ health insurance exchange. Relative to fixed subsidies, price-linking increases prices by up to 6% in a market with four competitors, and about twice as much when we simulate markets with two insurers. For levels of cost uncertainty reasonable in a mature market, we find that the losses from higher markups outweigh the benefits of price-linking.

“Taxation in matching markets.” (with A. Dupuy, A. Galichon, and S. D. Kominers).

We analyze the effects of taxation in two-sided matching markets, i.e. markets in which all agents have heterogeneous preferences over potential partners. In matching markets, taxes

can generate inefficiency on the allocative margin by changing who is matched to whom, even if the number of workers at each firm is unaffected. While the allocative inefficiency of taxation need not be monotonic in the level of the tax when transfers flow in both directions, we show that it is weakly increasing in the tax rate for markets in which workers refuse to match without a positive wage. We introduce a renormalization that allows for an equivalence between markets with taxation and markets without taxation but with adjusted match values. We use our equivalence to show additional properties of matching markets with taxation and to adapt existing econometric methods to such markets. We then estimate the preferences in the college-coach US football matching market and show through simulations of tax reforms that the true deadweight loss can differ dramatically from that measured without accounting for the preference heterogeneity of the matching market. In addition to highlighting the potential for allocative distortions from taxation, our model provides a continuous link between canonical models of matching with and without transfers.

“Chicago price theory” (with R. Minton, C. Mulligan, and K. Murphy)

“Behavior in strategic settings: Evidence from a million rock-paper-scissors games.” (with D. Batzilis, S. Levitt, J. A. List, and J. Picel).

“Efficient location choice and the returns to agglomeration” (with S. Morris).

“The welfare implications of health insurance” (with A. Malani).

“The effect of meeting rates on matching outcomes” (with S. Weber).

### **Honors:**

- 2014 Bradley Fellowship, *Lynde and Harry Bradley Foundation*
- 2014 Foundations of Human Behavior Research Grant,  
*The Eric M. Mindich Research Fund for the Foundations of Human Behavior*
- 2012-2013 Pre-doctoral Scholar, *Becker Friedman Institute*
- 2012 IQSS Graduate Fellowship, *Institute for Quantitative Social Sciences*
- 2011-2014 NSF Graduate Fellowship, *National Science Foundation*
- 2011 Terence M. Considine Fellow in Law and Economics,  
*John M. Olin Center for Law, Economics, and Business, Harvard Law School*
- 2009-2011 Presidential Scholar Fellowship, *Harvard University*
- 2008 DG Johnson BA Thesis Award, *University of Chicago*
- 2007 Phi Beta Kappa in junior year, *University of Chicago*

### **Invited Talks:**

- 2017 Federal Reserve Bank of Chicago
- 2015 University College London; University of Glasgow; University of Wisconsin – Madison; University of Chicago
- 2013 University of Wisconsin-Madison; Rotman School of Management, University of Toronto
- 2012 Managerial Economics and Decision Sciences Department, Northwestern University

## Conferences and Workshops:

### **Presenting**

- 2017 The 15<sup>th</sup> Annual International Industrial Organization Conference; The Health Care Markets Conference, Kellogg School of Management; International Health Economics Association Biannual Congress
- 2016 NBER Health Care Program Meeting; The Health Sector and the Economy, University of Chicago; The 6<sup>th</sup> Biennial Conference of the American Society of Health Economists, UPenn; Conference on Optimization, Transportation and Equilibrium in Economics, NYU
- 2014 Optimal Transport, Equilibrium, and Applications to Economics, Fields Institute for Research in Mathematical Sciences
- 2013 Workshop on Advances in Market Design, Paris School of Economics, AEA Annual Meetings: Demand Systems and Imperfect Competition
- 2012 Matching Problems: Economics Meets Mathematics, Becker Friedman Institute; AEA Annual Meetings: Merger Analysis and Policy
- 2011 The 4<sup>th</sup> Annual Federal Trade Commission Microeconomics Conference; The 4<sup>th</sup> Annual Searle Research Symposium on Antitrust Economics and Competition Policy; The 9<sup>th</sup> Annual International Industrial Organization Conference

### **Organizing**

- 2012 Merger Analysis and Policy, session at the AEA Annual Meetings
- 2011 Segregation: Measurement, Causes, and Effects, a conference of the *Inequality: Measurement, Interpretation, and Policy Network*

### **Discussing & Chairing**

- 2017 International Health Economics Association Biannual Congress
- 2011 Conference on Market-Based Models of Matching, Milton Friedman Institute; The 9<sup>th</sup> Annual International Industrial Organization Conference

## Other Professional Activities:

### **Refereeing**

*The B.E. Journal of Theoretical Economics; Econometrica; Economics Theory; Economics Bulletin; Economics Letters; European Economic Review; Games; International Journal of Industrial Organization; Journal of Economic Theory; Journal of Industrial Economics; Journal of Health Economics; Journal of Law, Economics, and Organization; Management Science; OMEGA; The RAND Journal of Economics.*

### **Membership**

American Economics Association; American Society of Health Economists; International Health Economics Association.