# JOHN J. HORTON

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### **Undergraduate Studies:**

B.S., Mathematics, Computer Science (minor), United States Military Academy at West Point, 2001

#### **Graduate Studies:**

Ph.D., Public Policy, Harvard University, 2011

Thesis: "Online Labor Markets"

References:

Professor Richard Zeckhauser
Harvard Kennedy School
617-495-1174
Professor Lawrence F. Katz
Harvard University
Department of Economics
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Professor Jeffrey B. Liebman
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### **Teaching and Research Fields:**

Research fields: Labor Economics, Organizational Economics, Personnel Economics

Teaching fields: Econometrics, Public Economics, Decision Analysis

#### **Teaching Experience:**

Spring 2010 EC970: Online Work, Harvard College, Tutorial Leader

Fall 2007 – API-302: Analytic Frameworks for Public Policy, Harvard Kennedy School,

2010 Teaching Fellow for Professor Richard Zeckhauser

Spring 2008 API-102: Economic Analysis of Public Policy, Harvard Kennedy School, Teaching

Fellow for Professor Jeffrey Liebman

Fall 2008 Math Camp for Incoming Ph.D./D.B.A. Candidates, Harvard Kennedy School,

Instructor

Summer 2008 MA206: Probability and Statistics, United States Military Academy at West Point,

Instructor

# **Research Experience and Other Employment:**

2011 – Present	oDesk Corporation, Staff Economist
2012 - Present	Harvard Kennedy School, Research Associate
Summer 2010	London School of Economics, Centre for Economic Performance, Research Intern
2007 - 2011	Harvard College, Pforzheimer House, Resident Tutor in Economics
2001 - 2006	United States Army, Tank Platoon Leader and Executive Officer

# **Professional Activities:**

### Academic Affiliations

2012 – Present	Harvard Law School, Berkman Center for Internet and Society, Affiliate
2012 – Present	Harvard Kennedy School, Research Associate
2009 - 2011	Institute for Quantitative Social Science

# **Professional Service**

Reviewer for The Quarterly Journal of Economics Reviewer for Judgment and Decision Making

Reviewer for ACM-Electronic Commerce

Reviewer for ACM-Computer Human Interaction

Reviewer for Clinical Psychological Science

Program Committee for ACM-Electronic Commerce

Program Committee for NIPS Workshop on Computation Social Science

### Select Academic Presentations & Panels

12/2012	MIT Roundtable Discussion on Work and Value in the Digital Economy
10/2012	Johns Hopkins University SAIS, Technology and Labor Markets Conference
11/2011	Harvard Business School, Networked Business Seminar: "The Applied Economics
	of an Online Labor Market: The Case of oDesk"
4/2011	University of Chicago, Experimental Economics Lunch Seminar
12/2010	Neural Information Processing Systems 24th Annual Conference, Vancouver, B.C.,
	Invited Speaker on "Social Science and the Wisdom of Crowds"
12/2010	The 6th Workshop on Internet and Network Economics, Stanford University
11/2010	Harvard Medical School, Christakis Lab Group Seminar Series
10/2010	CrowdConf 2010, San Francisco, CA
10/2010	Wharton School of Business, Advances with Field Experiments
10/2010	University of Massachusetts at Amherst, Crowdsourcing Applications Seminar
6/2010	University College London, European Association of Labour Economists / Society
	of Labor Economists 3rd International Conference
6/2010	ACM-Conference on Electronic Commerce, Cambridge, MA
3/2010	Harvard School of Engineering and Applied Science, EconCS Seminar
11/2009	SJDM Annual Conference, Boston, MA

# Select Industry Presentations & Panels

6/2012	BPO/ITO World Forum, Invited Panelist "The Social and Economic Impact of
	Global Sourcing: Getting the Complete Picture," New York, NY
3/2012	Founders and Funders Event, "Winning the Talent War," Redwood City, CA
12/2011	Intuit, Big Data and Analytics Workshop, Mountain View, CA
11/2011	Harvard Business School, Cyberposium 17, Panel: "The Cloud and SMB"
8/2011	Academy of Management Symposium, "The Global Ecology of Crowdsourcing,"
	San Antonio, TX

# Media Appearances

4/2012 On Point with Tom Ashbrook: "The Rise of Micro-Labor," NPR 90.9 WBUR Boston

# **Honors, Scholarships, and Fellowships:**

2010	University of Chicago, Becker Center on Price Theory, Summer Camp
2008 - 2010	NSF-IGERT Multidisciplinary Fellowship in Inequality and Social Policy
2009	Institute for Humane Studies Graduate Fellowship
2008	National Science Foundation Graduate Research Fellowship, Honorable Mention
2000	Outstanding Winner, Mathematical Contest in Modeling and SIAM Prize Winner
	(with J. Gibbs and K. Arnett)

#### **Grants:**

2010	Harvard University, Lab for Economic Applications and Policy, Research Grant
2010	Harvard University, Institute for Quantitative Social Science, Travel Grant
2010	Amazon Research Grant, Web Services
2009	Harvard Law School, Berkman Center for Internet and Society, Research Grant

# **Publications:**

#### **Economics Journals**

"The Online Laboratory: Conducting Experiments in a Real Labor Market" (with D. Rand and R. Zeckhauser), *Experimental Economics*, 14:3 (2011), 399-425.

"The Condition of the Turking Class: Are Online Employers Fair and Honest?" *Economics Letters*, 111:1 (April 2011), 10-12.

#### Computer Science Journals / Proceedings

"Labor Allocation in Paid Crowdsourcing: Experimental Evidence on Positioning, Nudges and Prices" (with D. Chandler), *Proceedings of the 25th Conference on Artificial Intelligence (AAAI), Human Computation Workshop (HCOMP)*, August 2011.

"Designing Incentives for Inexpert Human Raters" (with A. Shaw and D. Chen), *Proceedings of the ACM Conference of Computer Supported Cooperative Work (ACM-CSCW)*, Best Paper Nominee, March 2011.

"Online Labor Markets," *Proceedings of the 6th Workshop on Internet and Network Economics (WINE)*, December 2010.

"Algorithmic Wage Negotiations: Applications to Paid Crowdsourcing" (with R. Zeckhauser), *Proceedings of CrowdConf*, 2010.

"Task Search in a Human Computation Market" (with L. Chilton, R. Miller and S. Azenkot), *Proceedings of the ACM Conference on Knowledge Discovery and Data Mining/Human Computation (ACM-KDD/HCOMP)*, 2010.

"The Labor Economics of Paid Crowdsourcing" (with L. Chilton), *Proceedings of the 11th ACM Conference on Electronic Commerce (ACM-EC)*, 2010.

Job Market Paper: "Computer-Mediated Matchmaking: Facilitating Employer Search and Screening"

Participants in matching markets often face high search and screening costs. An informed third party may reduce these costs by recommending matches—an increasingly easy task as more markets become computermediated. This approach to reducing friction raises questions: When are recommendations effective? To what extent, if any, do recommendations crowd out non-recommended, "organic" matches? We answer these questions using an experiment conducted in an online labor market in which a treatment group of employers received algorithmically generated job candidate recommendations. Recommendations improved fill rates by nearly 17% among technical (e.g., computer programming) vacancies but had no effect on non-technical vacancies. This heterogeneity was likely caused by higher screening costs (which we estimate with a structural model of employer screening) and tighter markets for technical vacancies. Where fill rates did increase, however, it was only partly because employers acted upon recommendations; the treatment also increased the hiring of non-recruited, organic applicants. This complementarity was caused by treated employers screening more intensely and extensively, and their additional attention spilling over onto organic applicants. An instrumental variables analysis of the larger marketplace confirms both the positive effect of recruited applicants on fill rates and the absence of crowd-out. Together, these results imply that, despite their smaller size, search costs do impede matching in computer-mediated markets, but they can be reduced through informational interventions. Furthermore, despite explicit promotions of certain workers over others, in some cases recommendations can improve marketplace efficiency without making anyone worse off.

#### **Research Papers in Progress:**

"Overcoming Congestion in a Matching Market by Making Applications Costly" (with R. Johari and D. Chandler).

"Virtual Migration: the Effect of Outsourcing through Online Platforms on Workers in Developing Countries" (with D. Pomeranz).

"Digitization of Information and the Market for Contract Labor" (with A. Agrawal, N. Lacetera and E. Lyons). To appear in the NBER Economics of Digitization volume.

"Helping Workers Make Human Capital Decisions via Algorithmic Recommendations" (with P. Coles).

### **Working Papers:**

"Employer Expectations, Peer Effects and Productivity: Evidence from a Series of Field Experiments," 2010. Status: draft available.

"The Wages of Pay Cuts: Evidence from a Field Experiment" (with D. Chen), 2012. Status: draft available.

"Procurement, Incentives and Bargaining Friction: Evidence from Government Contracts," 2009. Status: revise and resubmit at *The Journal of Law and Economics*.

### **Non-Refereed Publications:**

"The Need for Standardization in Crowdsourcing" (with P. Ipeirotis), presented at the *Crowdsourcing Workshop*, ACM-CHI 2011, Vancouver, B.C., May 2011.

"Heads in the Cloud: Challenges and Opportunities in Human Computation" (with R. Miller, G. Little, M. Bernstein, J. Bigham, L. Chilton, M. Goldman and R. Nayak), *XRDS: Crossroads*, December 2010.