

# Robert L. Bray

*curriculum vitae*

## Academic Positions

- 2016– Associate Professor of Operations Management  
Kellogg School of Management, Northwestern University, Evanston, IL
- 2013–16 Assistant Professor of Managerial Economics and Decision Sciences  
Kellogg School of Management, Northwestern University, Evanston, IL
- 2012–13 Donald P. Jacobs Scholar of Managerial Economics and Decision Sciences  
Kellogg School of Management, Northwestern University, Evanston, IL

## Education

- 2007–12 Stanford Graduate School of Business, Stanford, CA  
PhD, Operations, Information, and Technology
- 2002–06 University of California at Berkeley, Berkeley, CA  
B.S. Industrial Engineering Operations Research  
Graduated ‘High Honors’

## Publications and Pre-Prints

### *Book*

- 2021 Homage to R: Learn the Language of Data Science

### *Journal Articles*

- 2012 [1] Information Transmission and the Bullwhip Effect: An Empirical Investigation.  
Coauthor: Haim Mendelson  
Outlet: *Management Science*, 58 (5), 860-875  
Finalist: *Management Science* Best Paper in Operations Management Award, 2014  
Finalist: *Management Science* Best Paper in Operations Management Award, 2015  
Finalist: George Nicholson Student Paper Competition, INFORMS, 2011  
Finalist: MSOM Student Paper Competition, MSOM Society, 2011  
Winner: Best Student Paper Competition, POMS Supply Chain College, 2011
- 2015 [2] Production Smoothing and the Bullwhip Effect  
Coauthor: Haim Mendelson  
Outlet: *Manufacturing & Service Operations Management*, 17 (2), 208-220  
Finalist: *M&SOM* Best Paper Award, 2018  
Finalist: *M&SOM* Best Paper Award, 2017
- 2016 [3] Multitasking, Multi-Armed Bandits, and the Italian Judiciary  
Coauthors: Decio Coviello, Andrea Ichino, and Nicola Persico  
Outlet: *Manufacturing & Service Operations Management*, 18 (4), 545-558
- 2019 [4] Ration Gaming and the Bullwhip Effect  
Coauthors: Yuliang Yao, Yongrui Duan, Jiazhen Huo  
Outlet: *Operations Research* 67 (2), 453-467
- 2019 [5] Markov Decision Processes with Exogenous Variables  
Outlet: *Management Science*, 65 (10), 4598-4606

## Publications and Pre-Prints (continued)

- 2019 [6] Supply Chain Proximity and Product Quality  
Coauthors: Juan Serpa, Ahmet Colak  
Outlet: *Management Science*, 65 (9), 4079-4099
- 2019 [7] Strong Convergence and Dynamic Economic Models  
Outlet: *Quantitative Economics*, 10 (1), 43-65
- 2019 [8] Operational Transparency: Showing When Work Gets Done  
Outlet: *Manufacturing & Service Operations Management*  
Winner: MSOM Data Driven Research Challenge, MSOM Society, 2018
- 2022 [9] Menu Costs and the Bullwhip Effect: Supply Chain Implications of Dynamic Pricing  
Coauthor: Ioannis Stamatopoulos  
Outlet: *Operations Research*, 70 (2), 748-765
- 2022 [10] On the limits of using randomness to break a dynamic program's curse of dimensionality  
Outlet: *Econometrica*, 90 (4), 1915-1929

### *Working Papers*

- 2023 [11] Logarithmic Regret in Multisecretary and Online Linear Programs with Continuous Valuations  
Outlet: Revise and resubmit at *Operations Research*
- 2023 [12] Unnesting the Fixed Point in Dynamic Program Estimation  
Outlet: Reject and resubmit at *Quantitative Economics*
- 2023 [13] Why Do Auto Manufacturers Initiate Recalls? A Structural Econometric Game  
Coauthor: Ahmet Colak  
Outlet: Revise and resubmit at *Management Science*
- 2023 [14] The Impact of Market Growth on Delivery Time: Evidence from JD.com  
Coauthors: Vadim Glinskiy, Tarek Abdallah  
Outlet: Under review at *Production and Operations Management*
- 2023 [15] A Disquieting Lack of Evidence for Disintermediation in a Home-Cleaning Platform  
Coauthors: Ekaterina Astashkina, Ruslan Momot, and Marat Salikhov  
Outlet: Under review at *Operations Research*
- 2023 [16] Prices are Endogenous. Evidence from a Large-Scale Pricing Experiment  
Coauthors: Ioannis Stamatopoulos and Robert Evan Sanders
- 2023 [17] Lessons Learned When Teaching Data Analytics with ChatGPT to MBAs in Spring 2023

### *Cases*

- 2011 [18] The Kindle  
Coauthor: Haim Mendelson  
Outlet: Taught in Stanford GSB's e-commerce class
- 2020 [19] Little's Law and the Italian Judiciary  
Outlet: Taught in Kellogg's core operations class

## Awards

- 2020 *Manufacturing & Service Operations Management* Meritorious Service Award
- 2019 *Manufacturing & Service Operations Management* Meritorious Service Award

## Awards (continued)

2019	<i>Management Science</i> Distinguished Service Award
2018	Winner, MSOM Data Driven Research Challenge, MSOM Society
2018	Finalist, <i>Manufacturing &amp; Service Operations Management</i> Best Paper Award
2017	<i>Management Science</i> Distinguished Service Award
2017	<i>Manufacturing &amp; Service Operations Management</i> Meritorious Service Award
2017	Finalist, <i>Manufacturing &amp; Service Operations Management</i> Best Paper Award
2016	<i>Management Science</i> Distinguished Service Award
2016	Outstanding Reviewer Recognition, Production & Operations Management Society
2015	<i>Management Science</i> Distinguished Service Award
2015	Finalist, <i>Management Science</i> Best Paper in Operations Management Award
2014	<i>Management Science</i> Distinguished Service Award
2014	Finalist, <i>Management Science</i> Best Paper in Operations Management Award
2011	Winner, Best Student Paper Competition, Production and Operations Management Society, College of Supply Chain Management
2011	Finalist, George Nicholson Student Paper Competition, INFORMS
2011	Finalist, MSOM Student Paper Competition, MSOM Society
2007–12	Doctoral Fellowship, Stanford GSB
2005	Undergraduate Research Opportunities Grant, UC Berkeley
2002-04	Alumni Scholarship for Leadership, UC Berkeley

## Teaching

### *Courses*

2021–	Descriptive and Predictive Analytics in R Role: Course creator and instructor Institution: Kellogg School of Management Level: MBA
2021–	Applied Advanced Analytics Role: Course creator and instructor Institution: Kellogg School of Management Level: MBA
2014–	Estimating Dynamic Programs Role: Course creator and instructor Institution: Kellogg School of Management and McCombs School of Business Level: PhD
2013–	Core Operations Management Role: Instructor Institution: Kellogg School of Management Level: MBA

## Teaching (continued)

- 2009–11 Introduction to Operations Management  
Role: Part time lecturer  
Institution: Stanford GSB  
Level: PhD
- 2009–11 Electronic Commerce  
Role: Teaching assistant  
Institution: Stanford GSB  
Level: MBA
- 2006 Discrete Event Simulation  
Role: Teaching assistant  
Institution: UC Berkeley College of Engineering  
Level: Undergraduate

### *Advising*

- 2013–17 PhD advisor to Ahmet Colak, at Kellogg  
Placement: Clemson University, Operations Management
- 2013 PhD committee member for Seyed Emadi, at Kellogg
- 2018 PhD committee member for Serasu Duran, at Kellogg
- 2018 PhD committee member for Nil Karacaoglu, at Kellogg
- 2018 PhD committee member for Simin Li, at Kellogg
- 2018 PhD committee member for Yue Yin, at Kellogg
- 2021 PhD co-advisor to Vadim Glinskiy, at Kellogg

## Professional Experience

- 2023 Visiting Scholar at *McCombs School of Business*
- 2020– Associate editor at *Management Science*
- 2016– Senior editor at *Production and Operations Management*
- 2015 Co-chair of the MSOM Supply Chain SIG
- 2013 Keynote speaker at E2Open's supply chain round-table
- 2009–10 President of PhD Association at Stanford GSB
- 2006–07 Semiconductor manufacturing consultant at Leachman & Associates
- 2005 Manufacturing engineering co-op at Intel
- 2005 Industrial engineering co-op at Disneyland
- 2004–05 Research assistant at Cohn Visual Detection Laboratory, UC Berkeley

## Professional Experience (continued)

- 2009– Referee  
*Management Science*  
*Operations Research*  
*Manufacturing & Service Operations Management*  
*Production and Operations Management*  
*Mathematics of Operations Research*  
*Journal of Operations Management*  
*International Journal of Production Research*  
*Econometrica*  
*Quantitative Economics*  
*The RAND Journal of Economics*  
*IIE Transactions on Healthcare Systems Engineering*  
*Journal of Operations Management*  
MSOM student paper competition  
MSOM supply chain SIG  
MSOM services SIG  
POMS Supply Chain Student Paper Competition  
INFORMS interactive poster session
- 2004–2014 Academic programs  
Kellogg Faculty Immersion Trip to Brazil  
Chicago-Argonne Initiative for Computational Economics  
Georgia Tech East Asia Industrial Engineering Program

## Invited Presentations

- 2010-11 Information Transmission and the Bullwhip Effect  
Caterpillar Headquarters  
Wharton Workshop on Empirical Research in OM
- 2011-14 Production Smoothing and the Bullwhip Effect  
Marshall School of Business, University of Southern California  
Columbia Business School  
Fuqua School of Business, Duke University  
Harvard Business School  
Kellogg Graduate School of Management, Northwestern University  
Rady School of Management, University of California, San Diego  
Stern School of Business, New York University  
Wharton School, University of Pennsylvania  
Wharton Workshop on Empirical Research in OM  
MSOM Supply Chain SIG (2012, 2014)
- 2015 Multitasking, Multi-Armed Bandits, and the Italian Judiciary  
Lehigh University College of Business and Economics  
Wharton Workshop on Empirical Research in OM
- 2015 Why Do Auto Manufacturers Initiate Recalls? A Structural Econometric Game  
Lubar School of Business, University of Wisconsin, Milwaukee
- 2016-18 Strong Convergence and the Estimation of Markov Decision Processes  
University of Calgary Banff Empirical Microeconomics Workshop  
Northwestern University

## Invited Presentations (continued)

- 2017-19 Ration Gaming and the Bullwhip Effect  
McCombs School of Business, University of Texas, Austin  
Desautels Faculty of Management, McGill University  
CIRRELT, Montréal  
Robert Smith School of Business, University of Maryland  
MSOM Supply Chain SIG  
Fisher College of Business, Ohio State University  
Baruch College, The City University of New York  
SC Johnson College of Business, Cornell University  
HEC Montréal Workshop on Industrial Organization
- 2018 Operational transparency: Showing when work gets done  
Emory ISOM Workshop on Empirical Research
- 2019 Unnesting the Fixed Point in Dynamic Program Estimation  
Ross School of Business, University of Michigan  
Stanford Graduate School of Business  
Gies College of Business, University of Illinois
- 2019 Randomness Does Not Break the Curse of Dimensionality Unless the Dynamic Program is Trivial  
Eccles School of Business, University of Utah
- 2017-21 Ration Gaming and the Coronavirus  
W. P. Carey School of Business, Arizona State University  
Indian School of Business
- 2022-23 Logarithmic Regret in Multisecretary and Online Linear Programs with Continuous Valuations  
School of Management and Economics, The Chinese University of Hong Kong, Shenzhen  
Tippie College of Business, University of Iowa  
Centre for Supply Chain Management, Wilfrid Laurier University  
McCombs School of Business, University of Texas at Austin
- 2023 Prices are Endogenous. Evidence from a Large-Scale Pricing Experiment  
Columbia Business School
- 2023 What I Learned from Teaching MBAs Coding with ChatGPT in Spring 2023  
Columbia Business School

## Press

- 2013 Whipping the Supply Line into Shape  
Outlet: KelloggInsight
- 2015 A Smarter Way to Schedule  
Outlet: KelloggInsight
- 2018 A Counterintuitive Way to Keep Shelves Stocked and Prices Down  
Outlet: KelloggInsight
- 2018 Multi-tasking—why it’s bad for court efficiency
- 2019 How to Increase Your Office’s Productivity  
Outlet: KelloggInsight
- 2019 A Simple Way to Make Your Customers More Satisfied with Their Deliveries  
Outlet: KelloggInsight
- 2020 How to Increase Your Office’s Productivity  
Outlet: KelloggInsight

## Press (continued)

- 2020 With Online Package-Delivery Alerts, Later in the Process Is Better  
Outlet: Wall Street Journal
- 2020 What procurement managers should expect from a 'bullwhip on crack'  
Outlet: Supply Chain Dive
- 2023 ChatGPT Has Arrived. What's a Manager to Do?  
Outlet: KelloggInsight