Mohammad Fazel-Zarandi

CONTACT INFORMATION	MIT Sloan School of Management Massachusetts Institute of Technology Cambridge, MA	*Website: http://mitmgmtfaculty.mit.edu/mzarandi* *Email:* fazel@mit.edu

ACADEMIC POSITION

MIT Sloan School of Management — July 2018 - present
Senior Lecturer and Research Scientist

Yale School of Management — Sept. 2016 - June 2018
Postdoctoral Associate and Lecturer

EDUCATION

Rotman School of Management, University of Toronto, Canada — 2016
Ph.D., Operations Management

Department of Mechanical and Industrial Engineering, University of Toronto, Canada — 2010
M.S., Industrial Engineering

Department of Industrial Engineering, Amirkabir University of Technology, Iran — 2008
B.S., Industrial Engineering

RESEARCH INTERESTS

Machine Learning, Analytics, Decision-Making, Public Policy

PUBLICATIONS

1. "Prescriptive Machine Learning for Public Policy: The Case of Immigration Enforcement" with D. Bertsimas, under review, 2024.

2. "Why did US urban homicide spike in 2020? A cross-sectional data analysis for the largest American cities" with A. Barnett, *Risk Analysis*, 2024.

3. "Early Detection of Opioid Over-Procurement: A Machine Learning Approach," with D. Bertsimas, under 2nd round of review at M&SOM, 2023.

4. "Can Firms Benefit from Competition?," with I. Horstmann and F. Mathewson, *International Journal of Industrial Organization*, 76, 102740, 2021.

5. "Almost Robust Discrete Optimization," with O. Baron, O. Berman, V. Roshanaei, *European Journal of Operational Research*, 276(2), 451-465, 2020.

6. "Truthful Cheap Talk: Why Operational Flexibility May Lead to Truthful Communication," with O. Berman and D. Krass, *Management Science*, 65(4), 1624-1641, 2019.

7. "Approximating the First-Come, First-Served Stochastic Matching Model with Ohm's Law," with E. Kaplan, *Operations Research*, 66(5), 1423-1432, 2018.

8. "The Number of Undocumented Immigrants in the United States: Estimates Based on Demographic Modeling with Data from 1990-2016," with E. Kaplan and J. Feinstein, *PLOS ONE*, 13(9): e0201193, 2018.

9. "Solving a Stochastic Facility Location/Fleet Management Problem with Logic-Based Benders Decomposition," with O. Berman and J.C. Beck, *IIE Transactions*, 45(8), 896-911, 2013.

10. "Using Logic-Based Benders Decomposition to Solve the Capacity and Distance Constrained Plant Location Problem," with J.C. Beck, *INFORMS Journal on Computing*, 399-415, 2012.

11. "Solving a location-allocation problem with logic-based Benders' decomposition." with J.C. Beck, *Proceedings of the International Conference on Principles and Practice of Constraint Programming*, 344-351, 2009.

Awards	MIT Sloan Outstanding Teacher Award	2023
	MIT Graduate Teaching Award	2023
	Rotman Fellowship	2011-2015
	Martin Evans Scholarship	2012-2014
	Ontario Graduate Scholarship	2011-2012
	University of Toronto Fellowship	2009-2010

Teaching Experience

MIT Sloan School of Management

• Analytics of Operations Management, MBA elective	Fall 2021, 2022, 2023
• Stochastic Models in Business Analytics, Undergraduate	Fall 2021,2022, 2023
• Statistical Thinking and Data Analysis , Undergraduate	Spring 2019, 2020, 2021, 2022, 2023
• Engineering Statistics and Data Science, MBA/MS core	Summer 2019

Yale School of Management

• Revenue Management, MBA elective	Spring 2018
• Supply Chain Management, MBA elective	Spring 2017, Fall 2017

Rotman School of Management

• Operations Management, Undergraduate	Fall 2015

Selected Media Coverage

Op-Eds

- " Prior estimates of undocumented immigrants in the US were way off," *The Hill*, Oct. 26, 2018.

- "How many undocumented immigrants there really are, and why the number matters," *New York Daily News*, Oct. 1, 2018.

Other coverage

- *Boston Globe*: "Undocumented population is twice as large as previously thought."

- *Los Angeles Times*: "Number of immigrants in U.S. illegally could be double the widely accepted estimates, study suggests."

- *Bloomberg*: "MIT-Yale Study Doubles Estimates of U.S. Undocumented Immigrants."

- *New York Times*: "Trump's Statistics About Undocumented Immigrants Are Questioned by Experts."

- *Fox News*: "Number of illegal immigrants in US may be twice what's reported: Yale-MIT study."

- *The Hill*: "Yale, MIT study: 22 million, not 11 million, undocumented immigrants in US."

- *Politico*: "New study estimates 22M undocumented immigrants reside in the U.S."

- *Daily Mail*: "Study finds there are over 22million undocumented immigrants in the US - more than double previous estimate."

- *Washington Post*: "President Trump tweets nonsensical figures on illegal immigration."

- *NPR*: "Yale-MIT study suggests number of undocumented immigrants may be double earlier estimates, we discuss methodology."

- *Mother Jones*: "A Study Says the Undocumented Population May Be Twice as Big as We Thought. Be Skeptical."

- *National Review*: "Yale Study: Twice as Many Undocumented Immigrants as Previously Thought in U.S."

INVITED TALKS
- Sloan School of Management, Massachusetts Institute of Technology
- Operations Research Center, Massachusetts Institute of Technology
- Yale School of Management, Yale University
- Heinz College of Information Systems and Public Policy, Carnegie Mellon University
- H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology
- Naveen Jindal School of Management, University of Texas at Dallas
- Rotman School of Management, University of Toronto

PERSONAL

Citizenship: Canada

Languages: English and Persian