

Mohammad M. Fazel-Zarandi

CONTACT INFORMATION MIT Sloan School of Management
Massachusetts Institute of Technology
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ACADEMIC POSITION MIT Sloan School of Management July 2018 - present
Senior Lecturer in Operations Research and Statistics

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 Research

Department of Mechanical and Industrial Engineering, University of Toronto, Canada 2011
M.S., Industrial Engineering

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

RESEARCH INTERESTS Machine Learning, Decision-Making, Mathematical Modeling, Public Policy

- PUBLICATIONS
1. "Prescriptive Machine Learning for Public Policy: The Case of Immigration Enforcement" with Dimitris Bertsimas, Under 2nd review at *Operations Research*, 2021.
 2. "Interpretable Machine Learning for Policy Analysis: The Case of National Immigration Policy," with Dimitris Bertsimas, Under review, 2021.
 3. "Early Detection of Opioid Over-Procurement: A Machine Learning Approach," with Dimitris Bertsimas and Joshua Ivanhoe, Major revision at *M&SOM*, 2021.
 10. "Can Firms Benefit from Competition?," with Ig Horstmann and Frank Mathewson, *International Journal of Industrial Organization*, Forthcoming, 2021.
 4. "Approximating the First-Come, First-Served Stochastic Matching Model with Ohm's Law," with Edward Kaplan, *Operations Research*, 66(5), 1423-1432, 2018.
 5. "The Number of Undocumented Immigrants in the United States: Estimates Based on Demographic Modeling with Data from 1990-2016," with Edward Kaplan and Jonathan Feinstein, *PLOS ONE*, 13(9): e0201193, 2018.
 6. "Truthful Cheap Talk: Why Operational Flexibility May Lead to Truthful Communication," with Oded Berman and Dmitry Krass, *Management Science*, 65(4), 1624-1641, 2019.
 7. "Almost Robust Discrete Optimization," with O. Baron, O. Berman, V. Roshanaei, *European Journal of Operational Research*, 276(2), 451-465, 2019.
 8. "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.
 9. "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.

OTHER
PUBLICATIONS

- "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.

TEACHING
EXPERIENCE

MIT Sloan School of Management

- Statistical Thinking and Data Analysis , Undergraduate course Spring 2019, 2020
- Engineering Statistics and Data Science, MBA/MS core course Summer 2019

Yale School of Management

- Revenue Management, MBA elective course Spring 2018
- Supply Chain Management, MBA elective course Spring 2017, Fall 2017

Rotman School of Management

- Operations Management, Undergraduate course Fall 2015

SELECTED MEDIA
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."

AWARDS

Rotman Fellowship	2011-2015
Martin Evans Scholarship	2012-2014
Ontario Graduate Scholarship	2011-2012
University of Toronto Fellowship	2009-2010

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

REFERENCES

Professor Dimitris Bertsimas

MIT Sloan School of Management
Massachusetts Institute of Technology
email: dbertsim@mit.edu

Professor Edward Kaplan

Yale School of Management
Yale University
email: edward.kaplan@yale.edu

Professor Oded Berman

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University of Toronto
email: berman@rotman.utoronto.ca