ELISABETH PAULSON

Immigration Policy Lab Stanford University 417 Galvez Mall

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Interests

Operations management, analytics for social good, public sector operations, food supply chains

Academic positions

Harvard Business School, Harvard University, Cambridge, MA

Technology and Operations Management Unit

Assistant Professor July 2022 -

Visiting Postdoctoral Fellow July 2021-July 2022

Stanford University, Stanford, CA

July 2021 - July 2022

Postdoctoral Fellow, Immigration Policy Lab

Education

Massachusetts Institute of Technology, Cambridge, MA

PhD in Operations Research

September 2016 - May 2021

Advisors: Prof. Retsef Levi and Prof. Georgia Perakis

Thesis: Healthy Food Access and Consumption: Informing Interventions Through Analytics

Supported by the NSF Graduate Research Fellowship (2016-2019)

The Pennsylvania State University, Schreyer Honors College, University Park, PA

M.A. in Mathematics August 2013 - May 2015

Advisor: Prof. Christopher Griffin

Thesis: A Reformulation of the CSSR Algorithm and Application to Optimal Deception Strategy in Two Player Games

B.A. in Mathematics August 2011 - May 2015 B.A. in Statistics August 2011 - May 2015

Awards/Honors

- 2nd place, POMS College of Supply Chain Management Best Student Paper Competition 2021
- Finalist, POMS College of Sustainable Operations Best Student Paper Competition 2021
- · Finalist, IBM Best Student Paper Award 2019
- NSF Graduate Fellowship 2016 - 2019
- 2011-2015 • Gerard L. Bayles Memorial Scholarship
- Kermit C. Anderson Memorial Award in Mathematics 2014
- Mary Lister McCammon Award in Mathematics 2013
- Merit Scholarship, Mathematics Advanced Study Semester 2012

Papers

Soon to be submitted & In progress

- W1. Fair group-level intervention bundles, with Retsef Levi and Georgia Perakis. Soon to be submitted.
- W2. Racial and ethnic variations in grocery shopping behavior amid COVID-19, with Retsef Levi and Georgia Perakis. Work in progress.
- W3. Interventions for reducing food waste on farms, with Raphaelle Delpont, Retsef Levi, and Georgia Perakis. Work in progress.
- W4. The location problem for healthy incentive retailers, with Retsef Levi and Georgia Perakis. Work in progress.

Published and under review

*The primary author(s) of each paper is bolded.

- P1. Public Health Risks Arising from Food Supply Chains: Challenges and Opportunities. L. Chen, D. Guttieres, R. Levi, E. Paulson, G. Perakis, N. Renegar, S. Springs. Minor revision, Naval Research Logistics, special issue on OR Models for Developmental Studies.
- P2. Optimal Interventions for Healthy Food Consumption Among Low Income Households. R. Levi, **E. Paulson**, and G. Perakis. Major revision, *Management Science*.
 - Finalist, POMS College of Supply Chain Management Best Student Paper Competition (2021)
 - Finalist, IBM Best Student Paper Award (2019)
 - · Accepted for oral presentation, Workshop on Mechanism Design for Social Good (2020) (acceptance rate 29%)
- P3. Reverse Information Sharing: Reducing Costs in Supply Chains with Yield Uncertainty. A. Jagmohan, P. Harsha, R. Levi, E. Paulson, and G. Perakis. R&R, Management Science.
 - 2nd place, POMS College of Sustainable Operations Best Student Paper Competition (2021)
- P4. Impact of Access and Value on Fresh Food Consumption: Policy Implications. R. Levi, E. Paulson, and G. Perakis. Under review, Production & Operations Management.
- P5. Cooperation Can Emerge in Prisoner's Dilemma from a Multi-Species Predator Prey Replicator Dynamic (2016). E. Paulson and C. Griffin. Mathematical Biosciences, 178 p.56-62.
- P6. A Game Theoretic Model for Resource Allocation Among Countermeasures with Multiple Attributes (2016). E. Paulson, I. Linkov, and J. Keisler. European Journal of Operations Research, 252 p.610-622. DOI: 10.1016/j.ejor.2016.01.026.
- P7. Deriving and Optimally Deceptive Policy in Two-Player Iterated Games. E. Paulson and C. Griffin. American Control Conference, 2016.
- P8. Optimal Process Control of Symbolic Transfer Functions. C. Griffin and E. Paulson. Feedback Computing, 2015.
- P9. Better Timing of Cyber Conflict. E. Paulson and C. Griffin. Third ASE Conference on Cyber Security, 2014.

Teaching Massachusetts Institute of Technology, Cambridge, MA

• 15.370 - Data, Models, and Decisions Teaching assistant for core Executive MBA class. TA evaluation score: 6.73/7

Spring 2020

- 15.S60 Computating in Optimization and Statistics Co-taught a 3-hour session on machine learning in R to PhD students
- January 2020 • 15.S41 - Software Tools for Business Analytics Taught a 3-hour session on machine learning in R to MIT undergrads

January 2020

• 15.734 - Intro to Operations Management

Summer 2018

Teaching assistant for core Executive MBA class.

TA evaluation score: 6.26/7

Microsoft Excel Training

Spring 2018, 2019

Co-taught Microsoft Excel training for Executive MBA students (three 3-hour sessions).

• 15.731 - Risk Management

January 2018

Teaching assistant for Executive MBA elective on risk management (two full-day sessions).

TA evaluation score: 7/7

Invited Talks

Healthy Food Consumption: Empirical Analysis and Optimization Models of Government Interventions.

Penn State College of Medicine: March 2021

Optimizing Group-level Food Policy Interventions.

- USC, Marshall Business School: January 2021
- UCLA, Anderson School of Business: January 2021
- Georgia Tech, ISyE: January 2021
- Naval Postgraduate School, OR: January 2021
- · Harvard Business School: January 2021
- Columbia Business School: January 2021
- UBC, Sauder School of Business: December 2021
- University of Minnesota, ISyE: December 2020
- Boston College, Carrol School of Management: December 2020
- Wisconsin School of Business, UW Madison: December 2021
- UC Berkeley, Haas School of Business: December 2020
- Dartmouth, Tuck School of Business: November 2020
- MIT, Sloan School of Management: November 2020

Optimal Interventions for Healthy Food Consumption Among Low Income Households.

- Kellogg-Wharton OM Workshop: July 2020
- Health Systems Innovation Seminar Series, MIT Sloan: April 2019

Conference Presentations

Reverse Information Sharing: Reducing Waste and Costs in Supply Chains with Yield Uncertainty.

- POMS: May 2021
- INFORMS Annual Meeting: November 2020

Fair Group-level Intervention Bundles.

• INFORMS Annual Meeting: November 2020

Optimal Interventions for Healthy Food Consumption Among Low Income Households.

- POMS: May 2021
- Workshop on Mechanism Design for Social Good: August 2020
- INFORMS Annual Meeting: October 2019
- INFORMS Annual Meeting: November 2018

Impact of Access and Value on Fresh Food Consumption: Policy Implications.

- INFORMS Annual Meeting: October 2017
- MSOM: July 2018

Choosing What to Protect, and How: Resource Allocation Among Countermeasures With Multiple Attributes.

• INFORMS Annual Meeting: November 2014

 $\textbf{Industry expe-} \quad \textbf{IBM Blockchain Solutions}, Yorktown \ Heights, NY$

June 2019 – August 2019

rience Research intern

Booz Allen Hamilton, Annapolis Junction, MD

July 2015 – June 2016

Data Scientist

Bates White, Washington, D.C.

June 2014-August 2014

Summer consultant intern

U.S. Army Engineer Research and Development Center, Concord, MA June 2013 – August 2013

Research intern with the Risk and Decision Science Team Part of the DHS HS-STEM Summer Internship program