

ELISABETH PAULSON

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- Interests** Analytics for social good, public sector operations, operations research
- 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
 Postdoctoral Fellow, Immigration Policy Lab July 2021 – July 2022
- 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
- Research**
- Submitted, under revision, and working*
- R1. Public Opinion on Fairness and Efficiency for Algorithmic and Human Decision-Makers. K. Bansak and E. Paulson. Under review.
- R2. Random Distribution Shift in Refugee Placement: Strategies for Building Robust Models. K. Bansak, E. Paulson, and D. Rothenhäusler. Under review.
- R3. Group Fairness in Dynamic Refugee Assignment. D. Freund, T. Lykouris, E. Paulson, B. Sturt, and W. Weng. Under review.
- Accepted to the 4th annual Symposium on Foundations of Responsible Computing (FORC '23)
 - Accepted to the 24th ACM Conference on Economics and Computation (EC '23)
- R4. Outcome-Driven Dynamic Refugee Assignment with Allocation Balancing. K. Bansak and E. Paulson. Under review.
- Accepted to the 2nd Workshop on AI & Analytics for Social Good
 - Accepted to the 23rd ACM Conference on Economics and Computation (EC '22)
- R5. 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%)

R6. 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)

Published

- 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. *Naval Research Logistics*, special issue on OR Models for Developmental Studies, 2021.
- P2. 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.
- P3. 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.
- P4. Deriving and Optimally Deceptive Policy in Two-Player Iterated Games. E. Paulson and C. Griffin. American Control Conference, 2016.
- P5. Optimal Process Control of Symbolic Transfer Functions. C. Griffin and E. Paulson. Feedback Computing, 2015.
- P6. Better Timing of Cyber Conflict. E. Paulson and C. Griffin. Third ASE Conference on Cyber Security, 2014.

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
- Gerard L. Bayles Memorial Scholarship 2011–2015
- Kermit C. Anderson Memorial Award in Mathematics 2014
- Mary Lister McCammon Award in Mathematics 2013
- Merit Scholarship, Mathematics Advanced Study Semester 2012

Teaching

Harvard Business School, Boston, MA

- Technology and Operations Management Fall 2022, 2023
- Summer Venture in Management Program Summer 2023
- Harvard Business Analytics Program Spring 2023

Massachusetts Institute of Technology, Cambridge, MA

- 15.370 - Data, Models, and Decisions Spring 2020
- 15.S60 - Computing in Optimization and Statistics January 2020
- 15.S41 - Software Tools for Business Analytics January 2020
- 15.734 - Intro to Operations Management Summer 2018
- Microsoft Excel Training Spring 2018, 2019
- 15.731 - Risk Management January 2018

Invited Talks *Outcome-Driven Dynamic Refugee Assignment with Allocation Balancing.*

- Workshop on Migration and Forced Displacement: October 2023
- Northeastern, D'Amore-McKim School of Business: April 2023
- Harvard EconCS seminar: March 2023
- London Business School: December 2021

Short-term Outcomes for Long-term Goals in Dynamic Refugee Matching.

- Stanford Causal Science Conference: November 2021

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

- Penn State College of Medicine: March 2021

Optimizing Group-level Food Policy Interventions.

- Stanford GSB: October 2021
- 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 *Group Fairness in Dynamic Refugee Assignment.*

- INFORMS '22

Outcome-Driven Dynamic Refugee Assignment with Allocation Balancing.

- EC '22, MSOM '22

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

- POMS '21, INFORMS '20

Fair Group-level Intervention Bundles.

- INFORMS '21, INFORMS '20

Optimal Interventions for Healthy Food Consumption Among Low Income Households.

- POMS '21, Workshop on Mechanism Design for Social Good '20, INFORMS Annual Meeting '19, INFORMS Annual Meeting '18

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

- MSOM '18, INFORMS '17

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

- INFORMS '14

Industry experience

IBM Blockchain Solutions , Yorktown Heights, NY Research intern	June 2019 – August 2019
Booz Allen Hamilton , Annapolis Junction, MD Data Scientist	July 2015 – June 2016
Bates White , Washington, D.C. Summer consultant intern	June 2014-August 2014
U.S. Army Engineer Research and Development Center , Concord, MA Research intern with the Risk and Decision Science Team Part of the DHS HS-STEM Summer Internship program	June 2013 – August 2013

Service

Reviewer for *M&SOM*, *Operations Research*, *POM*
 Program Committee, ACM EAAMO Conference 2021
 Program Committee, AAAI/ACM AIES 2023
 Area Chair, ACM EAAMO Conference 2022, 2023
 Judge for the 2021 INFORMS Public Sector OR Best Paper Award