ELISABETH PAULSON

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RESEARCH INTERESTS

Analytics for social good, public sector operations

ACADEMIC POSITIONS

Harvard Business School, Boston, MA
Technology and Operations Management Unit

2022 –	Assistant Professor
2021 – 2022	Visiting Postdoctoral Fellow

Stanford University, Stanford, CA

2021 – 2022	Postdoctoral Fellow, Immigration Policy Lab

EDUCATION

2016 – 2021	**Massachusetts Institute of Technology**, Cambridge, MA
	PhD in Operations Research
	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

2013 – 2015	M.A. in Mathematics
2013 – 2015	B.A. in Mathematics
2013 – 2015	B.A. in Statistics

WORKING PAPERS

Heterogeneous Treatment Effects in Panel Data. R. Levi, E. Paulson, G. Perakis, and E. Zhang.

Public Attitudes on Performance for Algorithmic and Human Decision-Makers. K. Bansak and E. Paulson.

Dynamic Matching with Post-Allocation Service and its Application to Refugee Resettlement. K. Bansak, S. Lee, V. Manshadi, E.Paulson, and R. Niazadeh.
◊ Accepted to the *25th ACM Conference on Economics and Computation* (EC '24)
◊ Accepted to the *5th Annual Symposium on Foundations of Responsible Computing}* (FORC '24)
◊ Accepted for Presentation at *9th Marketplace Innovation Workshop* (MIW '24)

Group Fairness in Dynamic Refugee Assignment. D. Freund, T. Lykouris, E. Paulson, B. Sturt, and W. Weng.
◊ Accepted to the *24th ACM Conference on Economics and Computation* (EC '23)

◊ Accepted to the *4th annual Symposium on Foundations of Responsible Computing* (FORC '23)

Designing Inclusive Offerings. R. Levi, E. Paulson, and G. Perakis.

Optimal Interventions for Increasing Healthy Food Consumption Among Low Income Populations. R. Levi, E. Paulson, and G. Perakis.
◊ Accepted for oral presentation, Workshop on Mechanism Design for Social Good (2020)

Enhancing the benefits of dual sourcing with reverse information sharing. A. Jagmohan, P. Harsha, R. Levi, E. Paulson, and G. Perakis.

PUBLISHED PAPERS

Learning Under Random Distributional Shifts. K. Bansak, E. Paulson, and D. Rothenhäusler. Proceedings of the *International Conference on Artificial Intelligence and Statistics* (AISTATS '24).

Outcome-Driven Dynamic Refugee Assignment with Allocation Balancing. K. Bansak and E. Paulson. *Operations Research*, Articles in Advance (2024).
◊ Extended abstract appeared in the *23rd ACM Conference on Economics and Computation* (EC '22)

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.

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.

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.

Deriving and Optimally Deceptive Policy in Two-Player Iterated Games. E. Paulson and C. Griffin. Proceedings of the *American Control Conference*, 2016.

Optimal Process Control of Symbolic Transfer Functions. C. Griffin and E. Paulson. Proceedings of *Feedback Computing*, 2015.

Better Timing of Cyber Conflict. E. Paulson and C. Griffin. *Third ASE Conference on Cyber Security*, 2014.

TEACHING MATERIALS

E. Paulson and M. Toffel. "Market by Met Council: Revolutionizing Food Pantries in the Digital Age." Harvard Business School Case 624-060, May 2024.

TEACHING AT HBS

2022 – 2024   Technology and Operations Management (Core first-year MBA class)

2024 – present	Operations and Supply Chain Management, Harvard Business Analytics Program (Executive education course, 9 sessions/year)
2023	Summer Venture in Management Program (2 sessions)
2023	Harvard Business Analytics Program (1 session)

OTHER TEACHING

2023	Harvard University, SOCIOL 1186: Refugees in Global Perspective Guest lecture
2022	NYU Stern PhD Seminar Course Guest lecture
2020	MIT, 15.370 - Data, Models, and Decisions Teaching assistant for core Executive MBA class
2020	MIT, 15.S60 - Computing in Optimization and Statistics 3-hour session on machine learning in R for PhD students
2020	MIT, 15.S41 - Software Tools for Business Analytics 3-hour session on machine learning in R for MIT undergrads
2018	MIT, 15.734 - Intro to Operations Management Teaching assistant for core Executive MBA class
2018, 2019	MIT, Microsoft Excel Training for Executive MBA students Three 3-hour sessions each spring
2018	MIT, 15.731 - Risk Management Teaching assistant for Executive MBA elective, two full-day sessions

AWARDS & HONORS

2021	2nd place, POMS College of Supply Chain Management Best Student Paper Competition *Enhancing the Benefits of Dual Sourcing with Reverse Information Sharing*
2021	Finalist, POMS College of Sustainable Operations Best Student Paper Competition *Optimal Interventions for Increasing Healthy Food Consumption Among Low Income Populations*
2019	Finalist, IBM Best Student Paper Award *Optimal Interventions for Increasing Healthy Food Consumption Among Low Income Populations*
2016 – 2019	NSF Graduate Fellowship
2011 – 2015	Gerard L. Bayles Memorial Scholarship
2014	Kermit C. Anderson Memorial Award in Mathematics
2013	Mary Lister McCammon Award in Mathematics
2012	Merit Scholarship, Mathematics Advanced Study Semester

PRESENTATIONS

Outcome-Driven Dynamic Refugee Assignment with Allocation Balancing

2024	Invited talk, TTIC Workshop on Data-Driven Decision Processes
2024	Invited seminar, Wharton OID seminar
2024	Invited seminar, Microsoft Research New England
2024	Invited seminar, Northwestern Kellogg seminar
2024	Invited seminar, Harvard Applied Statistics workshop
2023	Invited seminar, Workshop on Migration and Forced Displacement
2023	2nd Workshop on AI & Analytics for Social Good
2023	Invited seminar, Northeastern, D'Amore-McKim School of Business
2023	Invited seminar, Harvard EconCS seminar
2022	EC '22
2022	MSOM '22
2021	Invited seminar, London Business School

Group Fairness in Dynamic Refugee Assignment

2022	INFORMS Annual Meeting '22

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

2021	Invited seminar, Stanford Causal Science Conference

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

2021	Invited seminar, Penn State College of Medicine

Optimizing Group-level Food Policy Interventions

2021	Invited seminar, Stanford GSB
2021	Invited seminar, USC Marshall Business School
2021	Invited seminar, UCLA Anderson School of Business
2021	Invited seminar, Georgia Tech ISyE
2021	Invited seminar, Naval Postgraduate School
2021	Invited seminar, Harvard Business School
2021	Invited seminar, Columbia Business School
2020	Invited seminar, UBC Sauder School of Business
2020	Invited seminar, University of Minnesota ISyE
2020	Invited seminar, Boston College Carrol School of Management
2020	Invited seminar, UW Madison Wisconsin School of Business
2020	Invited seminar, UC Berkeley Haas School of Business
2020	Invited seminar, Dartmouth Tuck School of Business
2020	Invited seminar, MIT Sloan School of Management

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

2021	POMS '21
2020	INFORMS Annual Meeting '20

Fair Group-level Intervention Bundles

2021	INFORMS Annual Meeting '21
2020	INFORMS Annual Meeting '20

Optimal Interventions for Healthy Food Consumption Among Low Income Households

2021	POMS '21
2020	Kellogg-Wharton OM Workshop
2020	Workshop on Mechanism Design for Social Good '20
2019	INFORMS Annual Meeting '19
2019	Invited seminar, MIT Sloan Health Systems Innovation Seminar Series
2018	INFORMS Annual Meeting '18

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

2018	MSOM '18
2017	INFORMS '17

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

2014	INFORMS '14

INDUSTRY EXPERIENCE

2019 – 2019	**IBM Blockchain Solutions**, Yorktown Heights, NY
	Research Intern
2015 – 2016	**Booz Allen Hamilton**, Annapolis Junction, MD
	Data Scientist
Summer 2014	**Bates White**, Washington, D.C.
	Summer consultant
Summer 2013	**U.S. Army Engineer Research and Development Center**, Concord, MA
	Research intern, DHS HS-STEM Summer Internship program

PROFESSIONAL SERVICE

2024	Moderator for the 33rd Women in Business Conference at HBS
	Ad-hoc Reviewer for *Management Science*, *M\&SOM*, *Operations Research*, *POM*
2024	Program Committee, ACM EC Conference
2022 – 2024	Area Chair, ACM EAAMO Conference
2023	Program Committee, AAAI/ACM AIES
2024	Judge for the POMS College of Sustainable Operations Student Paper Competition
2021	Program Committee, ACM EAAMO Conference
2021, 2024	Judge for the INFORMS Public Sector OR Best Paper Award