

# ALEX F. MILLS

*Curriculum Vitae*, revised January 20, 2021

Associate Professor of Operations Management  
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## PROFESSIONAL EXPERIENCE

Zicklin School of Business, Baruch College, City University of New York, New York NY.

- Associate Professor (with tenure), January 2019–present.
- Academic Director, Executive MBA in Healthcare Administration, March 2019–present.

Kelley School of Business, Indiana University, Bloomington IN.

- Visiting Research Associate, January 2019–May 2020.
- Associate Professor (with tenure), July 2018–December 2018.
- Assistant Professor, July 2012–June 2018.

## EDUCATION

*Ph.D.*, Statistics and Operations Research 2012  
University of North Carolina, Chapel Hill, NC

*B.S.*, Mathematics, *magna cum laude* 2007  
College of William and Mary, Williamsburg, VA

## PUBLICATIONS

**Publications in Peer-Reviewed Journals** (underline denotes current or former PhD student).

- [J11] Ö. E. Çakıcı and **A. F. Mills**. “On the Role of Triage in Healthcare Demand Management”. *Manufacturing and Service Operations Management* in press. <https://doi.org/10.1287/msom.2020.0908>
- [J10] **A. F. Mills**, J. E. Helm, and Y. Wang. “Surge Capacity Deployment in Hospitals: Effectiveness of Response and Mitigation Strategies”. *Manufacturing and Service Operations Management* in press. <https://doi.org/10.1287/msom.2019.0838>.
- [J9] **A. F. Mills** and J. E. Helm. “Medical Surge: Lessons for a Pandemic from Mass-Casualty Management”. *Health Management, Policy, and Innovation* 5(1) special issue on COVID-19, March 2020.
- [J8] E. M. Webb and **A. F. Mills**. “Incentive-Compatible Prehospital Triage in Emergency Medical Services”. *Production and Operations Management* 28(9):2221–2241, September 2019.
- [J7] D. D. Cho, K. M. Bretthauer, K. D. Cattani, and **A. F. Mills** “Behavior-Aware Service Staffing”. *Production and Operations Management* 28(5):1285–1304, May 2019.
- [J6] **A. F. Mills**, N. T. Argon, and S. Ziya. “Dynamic Patient Distribution in the Aftermath of a Disaster.” *Operations Research* 66(3):716–732, June 2018.

- [J5] **A. F. Mills**, J. E. Helm, A. F. Jola Sanchez, M. V. Tatikonda, and B. A. Courtney. “Coordination of Autonomous Healthcare Entities: Emergency Response to Multiple Casualty Incidents” *Production and Operations Management* 27(1):184–205, January 2018.
- [J4] **A. F. Mills**. “A Simple Yet Effective Decision Support Policy for Mass-Casualty Triage.” *European Journal of Operational Research* 253(3):734–745, September 2016.
- [J3] A. M. Frame and **A. F. Mills**. “Condition-Dependent Mate Choice: a Stochastic Dynamic Programming Approach.” *Theoretical Population Biology* 96:1–7, September 2014.
- [J2] **A. F. Mills**, N. T. Argon, S. Ziya, B. Hiestand, J. E. Winslow. “ReSTART: A Novel Framework For Resource-Based Triage in Mass-Casualty Events.” *Journal of Special Operations Medicine* 14(1):30–39, February 2014.
- [J1] **A. F. Mills**, N. T. Argon, and S. Ziya. “Resource-Based Patient Prioritization in Mass-Casualty Incidents.” *Manufacturing and Service Operations Management* 15(3):361–377, July 2013.

### Publications Under Review or Revision

- [R4] **A. F. Mills** and S. Ziya. “Optimal Testing under Limited Capacity”. Under review.
- [R3] M. Kamalahmadi, **A. F. Mills**, K. M. Bretthauer, J. E. Helm. “Mixing it Up: Operational Impact of Hospitalist Workload”. Major revision at *Management Science*.
- [R2] J. E. Helm, **A. F. Mills**, S. Hu, X. Yu, J. Deglise-Hawkinson, J. Pan. “A New Value Proposition for Reducing Readmissions: Dynamic Staffing for Post-discharge Follow-ups”. Under revision.
- [R1] K. Mayo, G. P. Ball, and **A. F. Mills**. “Forced Turnovers and Recall Scapegoating: Product Recalls and the Chief Executive Officer”. Under revision.

### Works in Progress

- [W3] “Equity and efficiency in hospitalist physicians work structure”. Work in progress (writing stage) with M. Kamalahmadi, J. E. Helm, and K. M. Bretthauer.
- [W2] “Recruitment and Turnover under Competition”. Work in progress (analysis stage) with K. Mayo and R. P. Parker.
- [W1] “Efficient Transition to Post-Acute Care”. Work in progress (analysis stage) with J. E. Helm and P. Shi.

### Full Papers Published in Peer-Reviewed Conference Proceedings

- [C5] M. V. Tatikonda, J. E. Helm, **A. F. Mills**, A. F. Jola Sanchez, and B. A. Courtney. “Operational Coordination of Autonomous Healthcare Services in Urban Disasters”. In *Proceedings of the 2015 Academy of Management Meeting*, August 2015.
- [C4] R. Liu, **A. F. Mills**, and J. H. Anderson. “Independence Thresholds: Balancing Tractability and Practicality in Soft Real-Time Stochastic Analysis.” In *Proceedings of the 35th IEEE Real-Time Systems Symposium*, December 2014.
- [C3] C. J. Kenna, J. L. Herman, B. B. Brandenburg, **A. F. Mills**, and J. H. Anderson. “Soft Real-Time on Multiprocessors: Are Analysis-Based Schedulers Really Worth It?” In *Proceedings of the 32nd IEEE Real-Time Systems Symposium*, December 2011.
- [C2] **A. F. Mills** and J. H. Anderson. “A Multiprocessor Server-Based Scheduler for Soft Real-Time Tasks with Stochastic Execution Demand.” In *Proceedings of the 17th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications*, August 2011.
- [C1] **A. F. Mills** and J. H. Anderson. “A Stochastic Framework for Multiprocessor Soft Real-Time Scheduling.” In *Proceedings of the 16th IEEE Real-Time and Embedded Technology and Applications Symposium*, April 2010.

## PRESENTATIONS

*Except where otherwise noted, this list includes only presentations where Mills was the presenter.*

- [P20] “Optimal Testing with Limited Capacity.”
- Decision Sciences Institute Annual Conference, November 2020, Webinar.
  - INFORMS Annual Meeting, October 2020, Webinar.
  - Baruch College Zicklin School of Business Omega Seminar, September 2020, Webinar.
- [P19] “The Price of Being Unprepared: COVID-19 and Healthcare” (to non-academic audience). One of three panelists, with J.C. Alejaldre and L. Zicklin.
- The New Normal in Business series, Baruch College Zicklin School of Business, September 2020, Webinar.
- [P18] “Relationships that Define a Resilient Supply Chain” (to corporate audience with focus on COVID-19 impact to supply chains).
- Neo4j Connections: Graphs for Risk Mitigation in Supply Chains, July 2020, Webinar.
- [P17] “Dynamic Staffing for Post-Discharge Follow-ups.”
- INFORMS Annual Meeting, October 2019, Seattle WA.
  - Production and Operations Management Conference, May 2019, Washington DC.
  - INFORMS Annual Meeting, November 2018, Phoenix AZ.
- [P16] “Mixing it Up: Operational Impact of Hospitalist Workload.”
- INFORMS Healthcare Conference, July 2019, Cambridge MA.
  - Baruch College Zicklin School of Business Omega Seminar, May 2018, New York NY.
  - Production and Operations Management Conference, May 2018, Houston TX.
  - ★ College of Healthcare Operations Management Best Paper Finalist (M. Kamalahmadi presented).
- [P15] “Calling for Care? The Risky Proposition of Triage in Healthcare Demand Management.”
- M&SOM Conference, June 2017, Chapel Hill NC.
- [P14] “Behavior Aware Service Staffing.”
- Production and Operations Management Conference, May 2017, Seattle WA (D. Cho presented).
- [P13] “Efficient Transition to Post-Acute Care.”
- INFORMS Annual Meeting, October 2020, Webinar.
  - INFORMS Healthcare Conference, July 2019, Cambridge MA.
  - INFORMS Annual Meeting, October 2019, Seattle WA.
  - INFORMS Annual Meeting, November 2017, Houston TX.
  - INFORMS Annual Meeting, November 2016, Nashville TN.
- [P12] “Incentive-Compatible Prehospital Triage in Emergency Medical Services.” (under various titles)
- Production and Operations Management Conference, May 2018, Houston TX.
  - Production and Operations Management Conference, May 2016, Orlando FL.
  - INFORMS Annual Meeting, November 2015, Philadelphia PA (E. Webb presented).
  - INFORMS Healthcare Conference, July 2015, Nashville TN.

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- INFORMS Annual Meeting, October 2013, Minneapolis MN.
- [P11] “From Incident to Inpatient: How Healthcare Coalitions can Improve Urban Incident Response” (under various titles)
- POMS International Conference, September 2016, Havana, Cuba.
  - INFORMS Annual Meeting, November 2015, Philadelphia PA.
  - POMS Annual Conference, May 2015, Washington DC.
- [P10] “Improving Surge Capacity through Coordination”
- National Healthcare Coalition Resource Center Webinar, March 2015 (audience of approximately 100 practitioners in healthcare and government).
  - POMS College of Healthcare Operations Management Mini-Conference *Showcase Presentation*, May 2015.
- [P9] “Surge Capacity Deployment in Hospitals: Response and Mitigation” (under various titles)
- Production and Operations Management Conference, May 2019, Washington DC.
  - INFORMS Annual Meeting, November 2016, Nashville TN.
  - United States Naval Academy Mathematics Colloquium, March 2016, Annapolis MD.
  - INFORMS Annual Meeting, November 2015, Philadelphia PA.
  - INFORMS Healthcare Conference, July 2015, Nashville TN.
  - Decision Sciences Institute Annual Meeting, November 2014, Tampa FL.
  - INFORMS Annual Meeting, October 2014, San Francisco CA.  
Second prize, Public Sector Operations Research paper contest.
  - Production and Operations Management Conference, May 2014, Atlanta GA.
  - University of Cincinnati Linder College of Business. Operations, Business Analytics, and Information Systems Seminar, March 2014, Cincinnati OH.
- [P8] “Resource-Based Patient Prioritization in Mass-Casualty Incidents.”
- INFORMS Annual Meeting, October 2012, Phoenix AZ.  
Finalist, Doing Good with Good OR Student Paper Competition.
  - Statistical and Applied Mathematical Sciences Institute (SAMSI) Program on Data-Driven Decisions in Healthcare. Patient Flow Working Group, November 2012, Durham NC.
- [P7] “Dynamic Patient Distribution in the Aftermath of a Disaster.” (under various titles)
- INFORMS Annual Meeting, November 2016, Nashville TN.
  - Manufacturing and Service Operations Management, July 2013, Fontainebleau, France.
  - Production and Operations Management Conference, May 2013, Denver CO.
  - INFORMS Annual Meeting, October 2012, Phoenix AZ.
  - Statistical and Applied Mathematical Sciences Institute (SAMSI) Program on Data-Driven Decisions in Healthcare. Distributed Healthcare Services Working Group, November 2012, Durham NC.
- [P6] “Resource Allocation in a Multiple Location Mass Casualty Incident.”
- INFORMS Healthcare Conference, June 2013, Chicago IL.
  - Production and Operations Management Conference, May 2013, Denver CO.
  - INFORMS Annual Meeting, October 2012, Phoenix AZ.

- [P5] “Collaborative Research: Priority Dispatching of Patients in the Aftermath of a Mass-Casualty Incident.”
- NSF CMMI Grantees Conference, July 2012, Boston MA.
  - UNC University Research Day, March 2011, Chapel Hill NC.s
  - NSF CMMI Grantees Conference, January 2011, Atlanta GA.
- [P4] “Patient Prioritization and Resource Allocation in Mass-Casualty Incidents.”
- University of Wisconsin Industrial and Systems Engineering Colloquium, March 2012, Madison WI.
  - Indiana University Kelley School of Business, Department of Operations and Decision Technologies Colloquium, March 2012, Bloomington IN.
  - Defense Resources Management Institute, US Naval Postgraduate School, February 2012, Monterey CA.
  - United States Naval Academy Mathematics Colloquium, February 2012, Annapolis MD.
  - Old Dominion University Decision Sciences Colloquium, January 2012, Norfolk VA.
  - INFORMS Annual Meeting, November 2011, Charlotte NC.
- [P3] “A Multiprocessor Server-Based Scheduler for Soft Real-Time Tasks with Stochastic Execution Demand.”
- IEEE International Conference on Embedded and Real-Time Computing Systems and Applications, August 2011, Toyama Japan.
  - IEEE Real Time Systems Symposium WIP Session, December 2010, San Diego CA.
- [P2] “ReSTART: A Resource-Based Method for Mass-Casualty Triage.”
- MSOM Conference, July 2011, Ann Arbor MI.
  - INFORMS Healthcare Conference, June 2011, Montreal QC.
  - INFORMS Annual Meeting, November 2010, Austin TX.
- [P1] “Stochastic Analysis of Multiprocessor Global Soft Real-Time Scheduling.”
- IEEE Real Time and Embedded Technology and Applications Symposium, April 2010, Stockholm Sweden.

## TEACHING

### At Baruch College

- **Service Operations Management:** undergraduate core course in operations. Spring 2019, Fall 2020 (2), Spring 2021.
- **Business Process Analysis:** undergraduate course in business process modeling and improvement. Spring 2019.
- **Supply Chain Management:** undergraduate course in supply chain strategy, planning, and operations. Fall 2019, Spring 2020.
- **Healthcare Informatics and Quality:** graduate course in data analytics and process improvement including Six Sigma. Zicklin Executive MBA in Healthcare Administration. Fall 2019, Fall 2020.

### At Indiana University

- **Supply Chain Management: Distribution and Inventory:** MBA/MS course in supply chain management, with emphasis on network design and inventory management. Fully online. Spring 2018, Spring 2016.
- **Supply Chain Planning and Analytics:** undergraduate course in supply chain modeling and analysis, with emphasis on spreadsheet applications. Fall 2018 (2), Fall 2017 (2), Spring 2017 (2), Fall 2015, Spring 2015 (2), Fall 2014, Spring 2014 (2), Fall 2013, Spring 2013 (2), Spring 2012.
- **Stochastic Processes for Operations Research:** doctoral course in applied probability including Markov chains and Poisson processes, with inventory and queueing applications. Spring 2017, Fall 2014.
- **Probability Models for Operations Research:** doctoral course in applied probability including renewal theory, queueing networks, and discrete-event simulation, with service applications. Spring 2018.
- **Special Topics in Decision Sciences:** doctoral seminar in stochastic modeling and simulation with applications to healthcare. Spring 2013.

#### At University of North Carolina

- **Decision Models for Business:** undergraduate introductory course in management science and business calculus. Fall 2009, Spring 2009, Fall 2008.
- **Introduction to Statistics:** undergraduate introductory course in descriptive statistics, probability, and elementary statistical inference. Summer 2009.
- Teaching assistant (responsible for grading) for **Discrete-Event Simulation:** graduate course in simulation analysis and modeling with ARENA. Spring 2012, Spring 2011, Spring 2010.

### DOCTORAL COMMITTEES

#### At Indiana University

- Masoud Kamalahmadi, Ph.D. 2020, Kelley School of Business (Doctoral committee co-chair with Kurt Bretthauer through 2018; member 2019–2020). Placement: Assistant Professor at University of Miami.
- Yu Wang, Ph.D. 2019, Kelley School of Business (Doctoral committee member). Placement: Assistant Professor at University of North Carolina Wilmington
- Xiaoyang (Sean) Yu, Ph.D. 2016, Kelley School of Business (Doctoral committee member). Placement: employed at AlixPartners
- David Cho, Ph.D. 2015, Kelley School of Business (Doctoral committee member). Placement: Assistant Professor at Woodbury University

### OTHER DOCTORAL STUDENT SUPERVISION

#### At Indiana University

- Andres Jola Sanchez, Ph.D. student, Kelley School of Business (Research Assistantship, Fall 2014).
- Masoud Kamalahmadi, Ph.D. student, Kelley School of Business (Research Assistantship, Fall 2015–Spring 2016).
- Kevin Mayo, Ph.D. student, Kelley School of Business (Research Assistantship, Fall 2016–Spring 2017).
- Yu Wang, Ph.D. student, Kelley School of Business (Research Assistantship, Fall 2012–Spring 2013).
- Eric Webb, Ph.D. student, Kelley School of Business (Research Assistantship, Spring 2014).

## GRANTS

[G1] PSC-CUNY Research Award Cycle 51 (PI). Dates: July 1, 2020–June 30, 2021. Budget: \$3,500.

## AWARDS

- [A10] POMS College of Healthcare Operations Management Best Paper 2018 (for paper R3).
- [A9] Operations and Decision Technologies Faculty Scholar, Indiana University Kelley School of Business 2018.
- [A8] Finalist, Sauvain Undergraduate Teaching Award, Indiana University Kelley School of Business 2017.
- [A7] Trustee Teaching Award, Indiana University 2015.
- [A6] Finalist, Trustee Teaching Award, Indiana University 2014.
- [A5] Second prize, INFORMS Public Sector Operations Research Paper Competition 2014 (for paper J10).
- [A4] Finalist, Sauvain Undergraduate Teaching Award, Indiana University Kelley School of Business 2013.
- [A3] Finalist, INFORMS Doing Good with Good OR Student Paper Competition 2012 (for paper J1).
- [A2] First prize, Physical Science and Mathematics Presentation, UNC University Research Day 2011.
- [A1] Excellence in Teaching Award, UNC Department of Statistics and Operations Research 2008.

## SERVICE

### Service to Professional Organization

- Business School Alliance for Health Management (BAHM), Member. Feb 2019–present.

### Service to Department and School at Baruch College

- Operations Management Area Coordinator. Fall 2020–present.
- Management Department Executive Committee, member (elected). Spring 2020–present.
- Graduate Curriculum Committee, alternate representative. Fall 2019–present.
- Academic Director, Executive MBA in Healthcare Administration. Spring 2019–present.
- Operations Management Faculty Search Committee, member. Academic year 2019–20. Search resulted in the hiring of Arash Asadpour and Ruth Beer.

### Editorial Service

- Associate Editor, *Health Care Management Science*, 2020–present.
- Associate Editor, *Manufacturing & Service Operations Management*, 2021–present.
- Journal referee: *Operations Research*, *Production and Operations Management*, *Manufacturing & Service Operations Management*, *European Journal of Operational Research*, *Management Science*, *IIE Transactions*, *IIE Trans. Healthcare Systems Engineering*
- Conferences and Competitions:
  - INFORMS Public Sector OR Section Best Paper Competition, committee chair 2015.
  - INFORMS Public Sector OR Doing Good with Good OR Student Paper Competition, 2017.
  - MSOM Healthcare Special Interest Group (SIG) Meeting, 2016.

- MSOM Student Paper Competition, 2017, 2016, 2015, 2014.
- POMS College of Healthcare Operations Management Paper Competition, 2021, 2019, 2018, 2016, 2015, 2014, 2013.
- Pierskalla Award, 2019.
- INFORMS Computing Society Conference, 2015.
- IEEE Real-Time and Embedded Technology and Applications Symposium: WiP Program, 2014.

#### **Conference Sessions Organized**

- POMS Annual Conference 2015.
- INFORMS Healthcare Conference 2013.
- INFORMS Annual Meeting 2018, 2016, 2015, 2013, 2012, 2011.

#### **Service to Department and School at Indiana University**

- Bloomington Research Fellows Coordinator, Center for Business of the Life Sciences, Indiana University Kelley School of Business. Feb–July 2018.
- Teaching Effectiveness Committee. 2015–16.
- Undergraduate Supply Chain Management Major Curriculum Committee. 2013–14, 2015–16.
- Kelley Connect Week second-year MBA case competition judge. 2018.
- W.W. Grainger case competition judge. 2016, 2015, 2014.
- ArcelorMittal case competition judge. 2013.
- Supply Chain and Operations Management Association (SCOMA) case competition judge. 2015, 2013.