

Ashlea Bennett Milburn

University of Arkansas
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Fayetteville, AR 72701
(479)-575-3702, ashlea@uark.edu

Education

Doctor of Philosophy, Industrial and Systems Engineering, Georgia Institute of Technology, 2009
Master of Science, Industrial and Systems Engineering, Virginia Tech, 2004
Bachelor of Science, Industrial Engineering, *summa cum laude*, University of Arkansas, 2003

Academic Appointments

Department of Industrial Engineering, University of Arkansas
Assistant Professor of Industrial Engineering, January 2010 to present

Sponsored Research Grants

National Science Foundation Award 1026179, Workshop: Healthcare Systems Engineering Research and Education Leadership, Rardin (25%), Bennett (25%), Buyurgan (25%), Pohl (25%), 05/2010-08/2010, \$28,233.

Center for Innovation in Healthcare Logistics, Characterizing the Home Health Medical Equipment Supply Chain, Bennett (50%), Mason (50%), 05/2010-05/2011, \$64,911.

Department of Homeland Security, National Transportation Security Center of Excellence, Mitigating Dynamic Risk in Multi-Modal Perishable Commodity Supply Chains, Pohl (25%), Bennett (25%), Rainwater (25%), Mason (25%), 07/2010-06/2012, \$170,000.

Mack Blackwell Transportation Center, Rail Transportation Models for Rural Populations, Rainwater (67%), Bennett (33%), 07/2010-08/2011, \$76,445.

Center for Innovation in Healthcare Logistics, Quantifying Nurse Involvement in the Home Healthcare Supply Chain, Milburn (50%), Mason (50%), 05/2010-05/2011, \$51,957.

Mack Blackwell Transportation Center, Models for Real-Time Disaster Relief Shelter Location and Supply Routing, Milburn (50%), Rainwater (50%), 08/2011-06/2012, \$47,076.

Medline Industries, Center for Excellence in Logistics and Distribution, Scheduling Workers in a Warehouse Based on Labor Productivity, Milburn (100%), 01/2013-08/2013, \$29,163

Center for Innovation in Healthcare Logistics, What is the Impact of Various Service Objectives on Home Health Operational Logistics Efficiency? Milburn (100%), 08/2013-08/2014, \$28,974

Center for Innovation in Healthcare Logistics, Measuring the Potential Spatial Accessibility of Home Health Services, Milburn (100%), 08/2013-08/2014, \$41,591

National Science Foundation, Non-Traditional Designs for Order-Picking Warehouses, Milburn (33%), Gue (33%), Smith (33%), 08/2013-07/2015, \$113,381

Medline Industries, Center for Excellence in Logistics and Distribution, Scheduling Workers in a Warehouse Based on Labor Productivity Phase II, Milburn (100%), 08/2013-08/2014, \$60,000

Medline Industries, Center for Excellence in Logistics and Distribution, An Analysis of Current and Alternative Forecasting Practices, Milburn (100%), 08/2014-08/2015, \$60,000.

University of Arkansas Office of the Provost, Provost's Collaborative Research Grant: Quantifying Surge Capacity of the Home Health Sector for Public Health Emergencies, Milburn (50%), McNeill (50%), \$1,374.

Refereed Journal Articles

Bennett, A.R., Erera, A. 2011. Dynamic periodic fixed appointment scheduling for home health. *IIE Transactions on Healthcare Systems Engineering* **1**(1), 6-19.

Milburn, A.B., Mason, S.J., Spicer, J. 2012. Characterizing the home healthcare supply chain. *Home Health Care Management & Practice* **24**(6), p. 266-274.

Milburn, A.B., Mason, S.J. 2013. How much time do home health nurses spend on non-clinical supply chain duties? *Home Health Care Management and Practice* **25**(4), p. 160-168.

Spicer, J, Milburn, A.B. 2013. Multi-objective home health nurse routing with remote monitoring devices. *International Journal of Planning and Scheduling* **1**(4), p. 242-263.

Milburn, A.B., Braham, A., McClinton, J. 2014. Integrating qualitative components in quantitative courses using Facebook. *Interdisciplinary Journal of E-Learning and Learning Objects* **10**, p. 229-246.

Milburn, A.B., Hewitt, M., Griffin, P., Savelsbergh, M.W.P. 2014. The value of remote monitoring systems for treatment of chronic disease. *IIE Transactions on Healthcare Systems Engineering* **4**(2), p. 65-79.

Kirac, E., Milburn, A.B., Wardell, C.L. 2014. The traveling salesman problem with imperfect information with application in disaster relief tour planning. To appear in *IIE Transactions on Scheduling and Logistics*, DOI:10.1080/0740817X.2014.976351

Journal Articles in Review

Li, B., Hernandez, I., Milburn, A.B., Ramirez-Marquez, J. Integrating uncertain user-generated data in disaster relief facility location. Submitted to *IIE Transactions*.

Hadiannassar, M., Milburn, A.B. Growing pains (a teaching case). Submitted to *INFORMS Transactions on Education*.

Kilinc, M., Milburn, A.B. A study of home telehealth diffusion among US home healthcare agencies using system dynamics. Submitted to *IIE Transactions on Healthcare Systems Engineering*.

Lian, K., Milburn, A.B., Rardin, R. An improved multi-directional local search algorithm for the multi-objective consistent vehicle routing problem. Submitted to *IIE Transactions*.

Book Chapters

Milburn, A.B. 2012. Operations research applications in home healthcare. In R. Hall (ed.), *Handbook of Healthcare System Scheduling* (pp. 281-303). New York: Springer.

Refereed Conference Proceedings

Thompson, B., Bennett, A.R. Reducing length of stay for congestive heart failure patients. *International Annual Conference for the American Society for Engineering Management*, October 2011, Lubbock, TX.

Bennett, A.R., Hewitt, H. Estimating the value of remote monitoring systems (2 page peer-reviewed abstract). *Proceedings of INFORMS Healthcare*, June 2011, Montreal, Canada.

Hewitt, M., Bennett, A.R. Home health care scheduling and routing (2 page peer-reviewed abstract). *Proceedings of INFORMS Healthcare*, June 2011, Montreal, Canada.

Milburn, A.B., Wardell, C.L. Evaluating the impact of incorporating information from social media streams in disaster relief routing. *World Wide Web 2012 Companion*, April 16-20, 2012, Lyon, France, p. 707-708.

Braham, A., Milburn, A.B., McClinton, J. Using LinkedIn in the classroom. *Proceedings of the American Society for Engineering Education Midwest Section Annual Conference*, September 2013, Salina, KS.

Kirac, E., Milburn, A.B., Wardell, C.L. How social media information is changing disaster relief routing plans. *Proceedings of the Industrial and Systems Engineering Research Conference*, May 2013, San Juan, Puerto Rico.

Kirac, E., Milburn, A.B., Wardell, C.L. How social media can aid disaster relief routing plans. *Proceedings of the International Institute of Industrial Engineers Conference*, June 2013, Istanbul, Turkey.

Other Publications

Bennett, A.R., Mason, S.J., Kamali, B., Hilborn, J., Phan, E. 2011. Characterizing the home healthcare supply chain: phase I project report. Prepared for the Center for Innovation in Healthcare Logistics at the University of Arkansas.

Rainwater, C., Milburn, A.B., Gwaltney, J. 2011. Rail transportation models for rural populations. Prepared for the Mack-Blackwell Rural Transportation Center at the University of Arkansas.

Milburn, A.B., Rainwater, C., Boudhoum, O., Young, S. 2013. Models for disaster relief shelter location and supply routing. Prepared for the Mack-Blackwell Rural Transportation Center at the University of Arkansas.

Li, B., Milburn, A.B. 2014. Scheduling workers in a warehouse based on productivity performance. Medline project final report. Prepared for the Center for Excellence in Logistics and Distribution at the University of Arkansas.

Presentations

Bennett, A.R., Erera, A. Home health nurse routing and scheduling. Presented at MIT ORC Healthcare Conference, Cambridge, MA, May 2007.

Bennett, A.R., Erera, A. Scenario-based planning for the dynamic periodic home health nurse scheduling problem. Presented at INFORMS Annual Meeting, Seattle, WA, November 2007.

Bennett, A.R., Erera, A. Dynamic periodic routing of home health practitioners. Presented at INFORMS Annual Meeting, Washington D.C., November 2008.

Bennett, A.R., Erera, A. The home health nurse routing and scheduling problem. Presented at the University of Arkansas Center for Innovation in Healthcare Logistics Seminar, Fayetteville, AR, 2008.

Bennett, A.R. The development and assignment of service district boundaries for long-term health service liaisons. Presented at INFORMS Annual Meeting, San Diego, CA, November 2009.

Bennett, A.R., Erera, A. Determining service districts for home health workers. Presented at the Industrial Engineering Research Conference, Cancun, Mexico, May 2010.

Taylor, N., Mason, S., Bennett, A.R. Industrial engineering analysis to improve phlebotomy lab operations. Presented at the Industrial Engineering Research Conference, Cancun, Mexico, May 2010.

Bennett, A.R., Mason, S.J., Hilborn, J., Phan, E. Home health supply chain project update. Presented at the CIHL Semi-Annual Sponsors Meeting, Fayetteville, AR, June 2010.

Bennett, A.R., Hewitt, M. The promise and value of remote monitoring devices. Presented at the INFORMS Annual Meeting, Austin, TX, November 2010.

Kamali, B, Bennett, A.R., Erera, A. Evaluating operating costs in routing problems with fixed appointment times. Presented at the INFORMS Annual Meeting, Austin, TX, November 2010.

Hewitt, M., Bennett, A.R., Nowak, M. Impact of consistency of care on home healthcare routing. Presented at the INFORMS Annual Meeting, Austin, TX, November 2010.

Bennett, A.R., Mason, S.J., Hilborn, J., Phan, E. Home health supply chain project update. Presented at the CIHL Semi-Annual Sponsors Meeting, Fayetteville, AR, December 2010.

Milburn, A.B., Mason, S.J., Kamali, B. Characterizing the home healthcare supply chain. Presented at the Society for Health Systems Conference, Orlando, FL, February 2011.

St. John, D., Spicer, J., Rainwater, C., Pohl, E., Milburn, A.B., Mason, S.J. Mitigating dynamic risk in multi-modal perishable commodity supply chain networks. Presented at the Fifth Annual Department of Homeland Security University Network Student Day, Washington, D.C., March 2011.

Spicer, J., Milburn, A.B., Hewitt, M. Impact of remote monitoring technologies on home health nurse routing. Presented at the Industrial Engineering Research Conference, Reno, NV, May 2011.

Milburn, A.B., Mason, S.J., Kamali, B. Characterizing the home healthcare supply chain. Presented at the Industrial Engineering Research Conference, Reno, NV, May 2011.

Milburn, A.B., Hewitt, M. Estimating the value of remote monitoring systems. Presented at the INFORMS Health Applications Conference, Montreal, Canada, June 2011.

Hewitt, M., Milburn, A.B. Home health care scheduling and routing. Presented at the INFORMS Health Applications Conference, Montreal, Canada, June 2011.

Milburn, A.B. Evaluating the impact of the Medicare hospice face to face encounter requirement. Presented at the Hospice and Palliative Care Association of Arkansas Fall Conference, Little Rock, AR, September 2011.

Thompson, B., Milburn, A.B. Reducing length of stay for congesting heart failure patients. Presented at the Annual Conference for the American Society for Engineering Management, October 2011.

Milburn, A.B., Mason, S.J., Spicer, J. How do home health nurses spend their time (poster). Presented at the INFORMS Annual Meeting, Charlotte, NC, November 2011.

Lin, Y.S., Erera, A., Milburn, A.B. Multi-scenario heuristics for a dynamic traveling salesman problem with fixed appointment times. Presented at the INFORMS Annual Meeting, Charlotte, NC, November 2011.

Spicer, J., Milburn, A.B., Mason, S.J. Patient and nurse considerations in home health routing with telehealth devices (poster). Presented at the INFORMS Annual Meeting, Charlotte, NC, November 2011.

Rainwater, C., Gwaltney, J., Milburn, A.B. Rail transportation models for rural populations. Presented at the Mack-Blackwell Rural Transportation Center Advisory Board Meeting, Fayetteville, AR, November 2011.

St. John, D., Bright, J., Rainwater, C., Pohl, E., Milburn, A.B., Mason, S.J. Mitigating dynamic risk in multi-modal perishable commodity supply chain networks (poster). Presented at the Mack-Blackwell Rural Transportation Center Advisory Board Meeting, Fayetteville, AR, November 2011.

Boudhoum, O., Milburn, A.B., Rainwater, C. Models for disaster relief and supply routing (poster). Presented at the Mack-Blackwell Rural Transportation Center Advisory Board Meeting, Fayetteville, AR, November 2011.

Wardell, C.L., Milburn, A.B. Evaluating the impact of incorporating information from social media streams in disaster relief routing. Presented at the First International Workshop on Social Web for Disaster Management, Lyon, France, April 2012.

Milburn, A.B., Mason, S.J., Spicer, J. Quantifying nurse involvement in the home health supply chain. Presented at the Industrial and Systems Engineering Research Conference, Orlando, FL, May 2012.

Milburn, A.B., Rainwater, C., Boudhoum, O., Young, S. Models for disaster relief shelter location and supply routing. Presented at the Industrial and Systems Engineering Research Conference, Orlando, FL, May 2012.

Milburn, A.B. Logistics for the common good. Presented at the Engineering Campus, Christ University, Bangalore, India, July 2012.

Milburn, A.B., Rainwater, C. Online point of distribution location in disaster relief. Presented at the INFORMS Annual Meeting, Phoenix, AZ, October 2012.

Kirac, E., Milburn, A.B., Wardell, C.L. Can social media information improve disaster relief routing plans? Presented at the INFORMS Annual Meeting, Phoenix, AZ, October 2012.

Wardell, C.L., Milburn, A.B., Kirac, E. Crisis, data, and decision making: when does accuracy matter? Presented at the Fourth Annual International Conference of Crisis Mappers, Washington, D.C., October 2012.

Spicer, J., Milburn, A.B. Patient and nurse considerations in home health routing with remote monitoring devices (poster). Presented at the University of Arkansas From Abstract to Contract Graduate Student Research Competition, Fayetteville, AR, October 2012.

Kirac, E., Milburn, A.B., Wardell, C.L. How social media information is changing disaster relief routing plans. Presented at the Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico, May 2013.

Kirac, E., Milburn, A.B., Wardell, C.L. How social media can aid disaster relief routing plans. Presented at the International Institute of Industrial Engineers Conference, Istanbul, Turkey, June 2013.

Milburn, A.B., Mason, S.J. Uncovering hidden costs in home health supply chains. Presented at INFORMS Healthcare, Chicago, IL, July 2013.

Braham, A., Milburn, A.B., McClinton, J. Using LinkedIn in the classroom. Presented at the American Society for Engineering Education Midwest Section Annual Conference, Salina, KS, September

2013.

Lian, K., Milburn, A.B., Rardin, R. Patient-focused considerations in home health nurse routing problems. Presented at the INFORMS Annual Meeting, Minneapolis, MN, October 2013.

Kirac, E., Milburn, A.B. Social media usage in disaster relief routing. Presented at the INFORMS Annual Meeting, Minneapolis, MN, October 2013.

Kirac, E., Milburn, A.B. Incorporating needs from social media in static disaster relief routing plans (poster). Presented at the INFORMS Annual Meeting, Minneapolis, MN, October 2013.

Li, B., Milburn, A.B. Scheduling workers in a warehouse based on productivity performance. Presented at the INFORMS Annual Meeting, Minneapolis, MN, October 2013.

Li, B., Milburn, A.B. Scheduling workers in a warehouse based on productivity performance (poster). Presented at the Center for Excellence in Logistics and Distribution Industrial Advisory Board Meeting and Research Symposium, Chicago, IL, April 2014.

Kirac, E., Milburn, A.B., Wardell, C.L. Humanitarian relief routing using social data. Presented at the Industrial and Systems Engineering Research Conference, Montreal, Canada, June 2014.

Li, B., Hernandez, I., Milburn, A.B., Ramirez-Marquez, J. Integrating uncertain data in disaster relief facility location. Presented at the Industrial and Systems Engineering Research Conference, Montreal, Canada, June 2014.

Kilinc, M., Milburn, A.B. Does home care accessibility depend on place or related variables? Presented at the Industrial and Systems Engineering Research Conference, Montreal, Canada, June 2014.

Lian, K., Milburn, A.B., Rardin, R. Study on home health care nurse routing problem. Presented at the Industrial and Systems Engineering Research Conference, Montreal, Canada, June 2014.

Milburn, A.B., Li, B. Scheduling workers in a warehouse based on productivity performance: phase II. Presented at the Center for Excellence in Logistics and Distribution Industrial Advisory Board Meeting and Research Symposium, Dallas, TX, October 2014.

Li, B., Milburn, A.B. Scheduling workers in a warehouse based on productivity performance: phase II (poster). Presented at the Center for Excellence in Logistics and Distribution Industrial Advisory Board Meeting and Research Symposium, Dallas, TX, October 2014.

Lian, K., Milburn, A.B., Rardin, R. Patient-focused considerations in home health nurse routing problems. Presented at the INFORMS Annual Meeting, San Francisco, CA, November 2014.

Kilinc, M., Milburn, A.B. Measuring the efficiency of home health agencies. Presented at the INFORMS Annual Meeting, San Francisco, CA, November 2014.

Hadiannassar, M., Milburn, A.B. Growing Pains (a teaching case study). Presented at the INFORMS Annual Meeting, San Francisco, CA, November 2014.

Kirac, E., Milburn, A.B. Social media usage in disaster relief routing. Presented at the INFORMS Annual Meeting, San Francisco, CA, November 2014.

Kirac, E., Miburn, A.B., Wardell, C.L. Social media usage in static disaster relief routing plans (poster). Presented at the INFORMS Annual Meeting, San Francisco, CA, November 2014.

Li, B., Hernandez, I., Milburn, A.B., Ramirez-Marquez, J. Integrating uncertain data in disaster relief facility location. Presented at the INFORMS Annual Meeting, San Francisco, CA, November 2014.

Hadiannassar, M., Milburn, A.B. Dillards store delivery project. Presented at the University of Arkansas From Abstract to Contract Graduate Research Competition, Fayetteville, AR, November 2014.

Kilinc, M., Milburn, A.B. Measuring spatial access to home healthcare services. Presented at the University of Arkansas From Abstract to Contract Graduate Research Competition, Fayetteville, AR, November 2014.

Courses Taught

INEG 2313: Applied Probability and Statistics for Engineers I, University of Arkansas

Spring 2010, enrollment 73, rating 3.70/5.0

Fall 2011, enrollment 80, rating 4.31/5.0

Fall 2013, enrollment 92, rating 4.73/5.0

INEG 410V: Introduction to Healthcare Systems Engineering, University of Arkansas

Fall 2010, enrollment 12, 4.30/5.0

Fall 2014, enrollment 28, 4.70/5.0

INEG 4633: Introduction to Transportation Logistics, University of Arkansas

Spring 2011 (cross-listed with INEG 5533), enrollment 17, rating 3.95/5.0

Spring 2012, enrollment 17, rating 4.81/5.0

Spring 2013, enrollment 20, 4.71/5.0

GNEG 4103: Globalization and Innovation, Christ University, Bangalore, India

Summer 2012, enrollment 7, rating 5.0/5.0

INEG 514V: Research in Healthcare Systems Engineering, University of Arkansas

Fall 2011, enrollment 5, 4.91/5.0

INEG 5533: Network Optimization in Transportation Logistics, University of Arkansas

Spring 2011 (cross-listed with INEG 4633), enrollment 20, rating 3.95/5.0

Spring 2013, enrollment 22, 4.79/5.0

Dissertations and Master's Theses Directed

- Jessica Spicer, MSIE, Incorporating patient service considerations in home health nurse routing, 2012
- Mina Hadiannassar, MSIE, Inventory routing for retail distribution, Anticipated 2015
- Mehmet Kilinc, PhD, Systems modeling for understanding home health care issues, Anticipated 2015
- Emre Kirac, PhD, Incorporating uncertain user-generated data in disaster relief routing, Anticipated 2015
- Bin Li, PhD, Incorporating uncertain user-generated data in disaster relief facility location, Anticipated 2016
- Kunlei Lian, PhD, Consistency considerations in vehicle routing, Anticipated 2016

Master's and Doctoral Committee Service

Jeff Gwaltney, MSIE, Thesis Committee, Chaired by C. Rainwater, 2011
Fan Zhang, MSIE, Oral Exam Committee, Chaired by M. Rossetti, 2011
James Hilborn, MSIE, Oral Exam Committee, Chaired by A.B. Milburn, 2011
Coby Durham, MSIE, Oral Exam Committee, Chaired by A.B. Milburn, 2012
Crystal Wilson, MSIE, Thesis Committee, Chaired by S. Root, 2013
M. Gonzalez, MSIE, Thesis Committee, Chaired by H. Nachtmann, 2013
Mohammad Shbool, PhD, Dissertation Committee, Chaired by M. Rossetti, TBD
Amir Ghahari, PhD, Dissertation Committee, Chaired by E.Pohl, TBD

Undergraduate Honors Theses Directed

- Othman Boudhoum, BSIE, Disaster relief models: location of Points of Distribution, 2013
- Adeola Yusuf, BSIE, Cost distribution analysis of remote monitoring system use in the treatment of chronic diseases, 2013
- Katy Accurso, BSIE, Analysis of the suitability of the trauma center location configuration in the state of Arkansas, 2014
- Christopher Bayles, BSIE, Uncertainty in relief supply distribution, 2014
- Yulong Su, BSIE, Models for incorporating block scheduling in blood drive staffing problems

Undergraduate Honors Committee Service

Natassia Taylor, BSIE, Industrial engineering analysis to improve phlebotomy lab operations
Blake Puryear, BSCS, A modular framework for home healthcare monitoring

Professional Service

National Service

ISERC, Healthcare Systems Engineering Track Co-Chair, 2010-2011

ISERC, Session Chair, 2010-2014

IIE Society for Health Systems, Student Paper Competition Faculty Coordinator, 2011-2013

IIE Society for Health Systems Conference, Applied Research Track Chair, 2012-2013

IIE Society for Health Systems Conference, Panel Moderator, 2012-2013

INFORMS Annual Meeting, Session Chair, 2012-2014

Healthcare Systems Engineering Alliance Treasurer, 2014

University Service

University of Arkansas Student Health Center Advisory Committee, 2011-present

Reviewer for Honors College Study Abroad Grant Proposals, 2013

Departmental Service

Committee on the Evaluation of Teaching, 2010-2011

Graduate Committee, 2010-2013

Arkansas Chapter of Alpha Pi Mu, **Faculty Advisor**, 2010-present

Graduate Optimization Curriculum Subgroup, **Co-chair**, 2011-2012

Undergraduate Committee, 2013-present

Student Awards Banquet, **Chair**, 2013-present

Scholarship Committee, **Chair**, 2013-present

Endowed Faculty Position Search Committee, 2013-present

Industry Experience

Visiting Nurse Health System, Atlanta, GA, Graduate Student Assistant, Sep 2008-May 2009

The Boeing Company, St. Louis, MO, Pricing Intern, May-Aug 2002

JB Hunt, LLC, Lowell, AR, Engineering Services Intern, May 2001-Apr 2002

Awards and Recognitions

- National Science Foundation Graduate Research Fellowship, 2003 - 2008
- INFORMS Doctoral Student Colloquium, 2008
- Georgia National Defense Transportation Association Fellowship, 2008
- Richard P. Covert HIMSS Foundation Scholarship for Management Systems, 2009
- Industrial Engineering Research Conference New Faculty Colloquium, 2010
- “Growing Pains” teaching case selected as finalist in INFORMS Case Competition with graduate student co-author Mina Hadiannassar, 2014
- Won 2nd place in INFORMS Annual Meeting Interactive Sessions Competition with graduate student co-author Emre Kirac, 2014

Awards by Supervised Students

- The Arkansas Alpha Chapter of Alpha Pi Mu won 3rd place in the 2011 National Outstanding Chapter Competition
- The Arkansas Alpha Chapter of Alpha Pi Mu won 2nd place in 2012 National Outstanding Chapter Competition
- Graduate student Jessica Spicer was awarded 1st place in the 2012 From Abstract to Contract Graduate Student Research Competition at the University of Arkansas
- The Arkansas Alpha Chapter of Alpha Pi Mu won 5th place in 2013 National Outstanding Chapter Competition
- Undergraduate honors student Katy Accurso was awarded an Honors College Research Grant in 2013
- Undergraduate honors student Yulong Su was awarded an Honors College Research Grant in 2013
- The Arkansas Alpha Chapter of Alpha Pi Mu won 3rd place in 2014 National Outstanding Chapter Competition

Professional Affiliations

Member, Institute of Industrial Engineers (IIE)

Member, IIE Society for Health Systems (SHS)

Member, Alpha Pi Mu Industrial Engineering Honor Society

Member, Institute for Operations Research and Management Science (INFORMS)