Mark E. Ferguson

Darla Moore School of Business, University of South Carolina
September, 2022

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https://sc.edu/study/colleges_schools/moore/about/leadership/

Administrative Experience

Senior Associate Dean of Academics and Research at the Darla Moore School of Business, University of South Carolina (July 2020-present): Serve as dean of the faculty and academic programs for the college, reporting directly to the Dean. Oversight for 235 full and part-time faculty members, academic research and centers, PhD programs and all graduate programs (IMBA, FTMBA, PMBA, MHR, MACC, MIB and MSBA). The progress in the rankings of the eligible programs for the last four years was:

	Business Week (Sept/Oct)	US News & WR **Overall** (March)	US News & WR ***Int Bus*** (March)	Gartner Supply Chain (July)	Financial Times (Sept/Oct)	US News & WR (Sept/Oct)	US News & WR **Overall** (Sept)	US News & WR **Int Bus** (Sept)	Poets and Quants (March)	Gartner Supply Chain (July)
	IMBA				**MIB**	**PMBA**	**Undergrad**			
2019	70	74	1	NR	NR	22	38	1	60	13
2020	NA (Covid)	62	1	22	NR	23	38	1	NA (Covid)	5
2021	75	55	1	22	NR	25	49	1	57	5
2022	56	47	1	6	46	27	39	1	41	3
Increase	20%	36%	0%	73%	NA	-23%	-3%	0%	32%	77%

Leadership, Responsibilities and Accomplishments:

Developed new, managed existing, and lead academic programs, budgets, and research for the DMSB. The college has many of the highest ranked undergraduate and graduate programs in the University, a top 50 ranked faculty in terms of business school research output, and eight PhD programs.

- Oversaw revenue and cost model (RCM) for the college with budgetary oversight of faculty costs and graduate tuition revenue for the school's $100M per year budget
- Lead 4 direct reports: 7 department chairs, 2 associate deans, the school's IT department, PhD program and accreditation team, facilitating better communication and dialogue among all parties
- Lead successful AACSB re-accreditation visit in Fall, 2020
- Created and launched a new Masters in Business Analytics program in Fall 2021, with the highest tuition rates per credit hour of all graduate programs
- Recruited 21 new faculty members over the 21/22 academic years, 4 of which were underrepresented minorities and 9 of which were females
- In partnership with our private foundation, increased the number of new professorships from 20 to 45, created new annual awards for professional track faculty, increased our scholarships for URM students, and created a new funding source to recruit URM doctoral students

- Hired 5 new department chairs out of 7 total departments and 2 new associate deans
- Created an RCM-like budget model for our graduate programs which included the cost of instruction
- Lead the college through its transition from in-person to distance learning and back to in-person during the COVID-19 pandemic
- Over the 2020-22 time period, worked with our office of career management to achieve record starting salaries and percent of students placed within 90 days of graduation for both undergraduate and graduate programs

I. EARNED DEGREES

Sept. 2001 **Duke University, Durham, NC**
Ph.D. in Business Administration, Advisor: Paul Zipkin

August 1994 **Georgia Institute of Technology, Atlanta, GA**
M.S. in Industrial and Systems Engineering

Dec. 1991 **Virginia Polytechnic Institute and State University, Blacksburg, VA**
B.S. in Mechanical Engineering

II. EMPLOYMENT

Line items on a vita do not adequately convey the foundational experiences absorbed from each stage in a career. Interested readers can click on the links to be taken to a personal narrative of each stage, found at the end of the document.

4/19-present *Dewey H. Johnson Endowed Chair in Management Science* – **Darla Moore School of Business, University of South Carolina**, Columbia, SC

7/20 – present Senior Associate Dean of Research and Academics – **Darla Moore School of Business, University of South Carolina**, Columbia, SC
Oversight for 235 faculty members, research, PhD programs and all graduate programs (MBA, PMBA, MHR, MACC, MIB and MSBA)

2/17-12/20 *Department Chair of the Management Science Department* – **Darla Moore School of Business, University of South Carolina**, Columbia, SC
Program ranked #3 undergrad and #6 graduate for Supply Chain Management in North America by Gartner in 2022

7/17-12/17 *Visiting Scholar* – **Department of Information Systems and Operations Management** at the **University of Auckland Business School**, Auckland, NZ

8/11-4/19 *Wilbur S. Smith Distinguished Fellow and Professor of Management Science* – **Darla Moore School of Business, University of South Carolina**, Columbia, SC

2/08-8/11 *Steven A. Denning Professor of Technology and Management* – **College of Management**, **Georgia Institute of Technology**, Atlanta, GA

12/08-8/11 *John and Wendi Wells term professor* – **College of Management**, **Georgia Institute of Technology**, Atlanta, GA -

10/07-8/11 Faculty Director of the Technology and Management Program – **Colleges of Engineering and Management**, **Georgia Institute of Technology**, Atlanta, GA

8/07-8/11 *Associate professor* – **College of Management**, **Georgia Institute of Technology**, Atlanta, GA

6/06-12/08 *Gregory J. Owens term professor* – **College of Management**, **Georgia Institute of Technology**, Atlanta, GA

9/01-8/07 *Assistant professor* – **College of Management**, **Georgia Institute of Technology**, Atlanta, GA

2/01-5/01 *MBA Instructor* – **Fuqua School of Business, Duke University**, Durham, NC
Developed and taught MBA elective class on Information Systems and Operations Management.

5/92-7/96 *Associate Engineer* - **IBM Charlotte Electronic Card Assembly Plant**, Charlotte, NC
Managed $130M in inventory; negotiated worldwide supply shortages and overages; set parameter values for MRP system; purchased, certified, and trained employees on new manufacturing equipment; led the implementation of IBM's first electronic card assembly lines in China; led the change to eliminate water cleaning of circuit boards saving over 2 million gallons of water a year.

6/90-4/92 *Manufacturing Engineer* – **Litton Poly-Scientific**, Blacksburg, VA
Performed process improvement projects resulting in production cost savings averaging 20%; started the company's first surface mount technology capable electronic card assembly line.

1/89-12/89 *Engineer Co-op* – **Newport News Shipbuilding**, Newport News, VA
Part of design team for the Seawolf Submarine; prepared financial variance reports for submarine and aircraft carrier construction projects.

1980-1/89 Barts' Farms, Hardees, Revco, OK Construction, …

Curriculum Development

University of South Carolina

1. Masters of Business Analytics: Chair of committee that researched, championed and oversaw the approval process for this new Master's level program that launched in the fall of 2021.
2. Advanced Business Analytics Executive Education Program: Developed and taught in a four-week program offered multiple times a year. The primary audience consist of officers from the U.S. Army who are responsible for providing budget updates to their commanders.
3. Business Analytics Certificate (New certificate at the graduate level): Served as chair of a college-wide faculty committee charged with developing the curriculum for a certificate in Business Analytics.

4. Business Analytics Concentration (New concentration at the undergraduate level): Served as chair of a college-wide faculty committee charged with developing the curriculum for a concentration in Business Analytics.
5. MGSC 778 – IMBA and PMBA Elective on Revenue Management: (New course) Designed this course to meet the new seven-week format of the PMBA program by video recording some lectures and creating reference material and activities to be consumed off-line. Average enrollment over the last two times taught has been 68 students per class.
6. Mentored nine GSCOM capstone student projects (from August 2011 – 2015) with companies such as Siemens, Cummins and Eaton.

Georgia Tech

1. Technology and Management Program (New undergraduate program): Served as chair for a management faculty committee and an engineering faculty committee to develop the curriculum for a new undergraduate program that combines management and engineering students. Oversaw the approval process for a new Engineering and Management minor and recruited faculty to teach in the program. Managed a staff of two administrators and an annual budget of $400K.
2. MGT 4742 – Technology and Management Capstone Course: (New course) In this course, interdisciplinary teams of undergraduate students work on industry consulting projects provided by the Technology and Management Program's corporate affiliates.
3. MGT 6350 – MBA Core Operations Management Class: (Significantly revised existing course) This course focuses on the core concepts of operations management at the graduate level. This is a required course for the MBA degree.
4. MGT 6352 – MBA Operations Practicum and International Trip: (New course) This course combines a semester long industry project with an international trip over spring break. The course allows MBA students to gain experience working on real industry problems while also exposing them to the challenges and opportunities of doing business on a global scale. Corporate sponsorships from participating companies have helped reduce the cost of the trip for the MBA students.
5. MGT 6362 – MBA Elective on Supply Chain Modeling and Revenue Management: (New course) This course focuses on the modeling of supply chain inventory policies and the use of revenue management techniques in both traditional (travel and hospitality) and non-traditional industries.
6. MGT 6400 – MBA Elective on Pricing Analytics and Revenue Management: (New course) This course focuses on extracting additional value from the revenue side of the profit equation. Topics include capacity-based revenue management, markdown pricing, customized pricing and overall price optimization.
7. MGT 6753 –Supply Chain Management Module in Principles of Management for Engineers: (Revised existing course) Principles of Management for Engineers is a one-semester class designed to expose non-management majors to the fundamental concepts of business.
8. MGT 8855 – Graduate Seminar in Supply Chain Management: (New course) This is a doctoral level course where the students explore new research areas in the fields of supply chain management and revenue management.

Curriculum Program Reviewer

1. Member of five-person review team for the University of Utah's Graduate Council Program Review for the David Eccles School of Business – January 2019

2. Outside reviewer for University of Cincinnati's Masters in Business Analytics Business Administration program for the Linder College of Business – September 2022

III. SCHOLARLY ACCOMPLISHMENTS

A. PUBLISHED BOOKS AND PARTS OF BOOKS

1. Pak, O., Ferguson, M., Perdikaki, O., and S. Wu, 2022, "Optimizing Stock-Keeping Unit Selection for Promotional Display Space at Grocery Retailers", Chapter to appear in *Retail Space Analytics*, Ghoniem, A., and B. Maddah, Eds., Springer
2. Boroushaki, M., Ferguson, M., and T. Olsen, 2019, "Environmental Sustainability Trade-offs in a Product's Supply Chain", Chapter to appear in *Responsible Operations*, Deshpande, V., and J. Swaminathan, Eds., Springer
3. Ferguson, M., 2019, "Estimating Demand with Constrained Data and Product Substitutions", Chapter in *Channel Strategies and Marketing Mix in a Connected World,* Ray, S. and Y. Shuya, Eds., Springer
4. Bellos, I., and M. Ferguson, 2016, "Moving from a Product-Based Economy to a Service-Based Economy for a More Sustainable Future," Chapter in *Sustainable Supply Chains*, Fransoo, J., Bouchery, Y., Tan, T. and C. Corbett, Eds., Wiley
5. Ferguson, M., Souza, G., Hu, S. and W. Wang, 2016, "Capacity Investment Decisions in Renewable Energy Technologies", Chapter in *Environmentally Responsible Supply Chains*, A. Atasu, Ed., Springer
6. Segmentation, Revenue Management and Pricing Analytics, by Tudor Bodea and Mark Ferguson, 2014, Routledge
7. Pricing Segmentation and Analytics, by Tudor Bodea and Mark Ferguson, 2012, Business Expert Press
8. Closed Loop Supply Chains: New Directions to Improve the Sustainability of Business Practices, edited by Mark Ferguson and Gilvan Souza, 2010, Taylor and Francis Publishing
9. Strategic and Tactical Aspects of Closed-Loop Supply Chains, by Mark Ferguson, 2010, *Foundations and Trends in Technology, Innovation, and Operations Management*, NOW Publishing Vol 3, Issue 2
10. Ferguson, M., 2010, "Customized Pricing to Bid Opportunities in Competitive Markets," Chapter in *Wiley Encyclopedia of Operations Research and Management Science*
11. Drake, M.J., and M. Ferguson, 2008, "Closed Loop Supply Chain Management for Global Sustainability," Chapter in *Global Sustainability Initiatives, New Models and New Approaches*, J. Stoner and C. Wankel, Eds., Information Age Publishing

B. REFEREED PUBLICATIONS

Published or Forthcoming Papers in Refereed Journals

1. Cho, S., Ferguson, M., Pekgün, P., and A. Vakhutinsky, 2022, "Estimating Personalized Demand with Unobserved No-purchases using a Mixture Model: An Application in the Hotel Industry" *Manufacturing and Service Operations Management*, to appear (**Finalist for 2021 M&SOM Practice Based Research Competition**)

2. Yılmaz, Ö., M. Ferguson, P. Pekgün and G. Shang, 2022, "Strategic Behavior for Hotel Standby Upgrade Programs: Empirical Evidence and Pricing Implications" *Journal of Operations Management,* Vol(68-5), March
3. Ma, X., Talluri, S., Tiwari, S. and M. Ferguson, 2022, "Strategic Production and Responsible Sourcing Decisions under an Emissions Trading Scheme" *European Journal of Operational Research*, Vol(303,3), December, 1429-1443
4. Pak, O., Galbreth, M. and M. Ferguson, 2022, "Retailer Strategies to Encourage Reduced Packaging Adoption" *Journal of Cleaner Production,* Vol(354,20), June
5. Galetsi, P., Katsaliaki, K., Kumar, S., and M. Ferguson, 2021, "What Affects Consumer Behavior in Mobile Health Professional Diagnosis Applications" *Decision Sciences Journal,* to appear
6. Peng, Y., Ferguson, M., and O. Yilmaz, 2021, "Airline Revenue Management around Sporting Mega-Events: An Application Using Data from the Super Bowl XLIX" *Journal of Revenue and Pricing Management*, August
7. Ferguson, M., and M. Drake, 2021, "Teaching Supply Chain Risk Management in the COVID-19 Age: A Review and New Suggestions" *Decision Sciences Journal of Innovative Education,* Vol(19,1), January, 5-14
8. Pak, O., Ferguson, M., Perdikaki, O., and S. Wu, 2020, "Optimizing Stock-Keeping Unit Selection for Promotional Display Space at Grocery Retailers" *Journal of Operations Management* Vol(66, 5), April, 501-533
9. Ataseven, C., Nair, A. and M. Ferguson, 2020, "Examining the role of supply chain integration in strengthening the performance of not-for-profit organizations: Evidence from the Food Banking Industry" *Journal of Humanitarian Logistics and Supply Chain Management* Vol(10, 2), November, 101-123
10. Shang, G., McKie, E., Ferguson, M., and M. Galbreth, 2020, "Using Transaction Data to Improve Consumer Returns Forecasting" *Journal of Operations Management* Vol(66, 3), April, 326-348
11. Shang, G., Ferguson, M., and M. Galbreth, 2018, "Where Should I Focus My Return Reduction Efforts? Data-Driven Guidance for Retailers" *Decision Sciences Journal* Vol(50), Aug, 877-909
12. McKie, E., Ferguson, M., Galbreth, M. and S. Venkataraman, 2018, "How Consumers Choose Between Multiple Product Generations and Conditions" *Production and Operations Management* 27(8), 1574-1594
13. Ataseven, C., Ferguson, M., and A. Nair, 2018, "An Examination of the Relationship Between Intellectual Capital and Supply Chain Integration in Humanitarian Aid Organizations: A Survey-based Investigation of Food Banks" *Decision Sciences Journal* Vol(49), Oct, 827-862
14. Shang, G., Pekgun, P., Ferguson, M., and M. Galbreth, 2017, "How Much Do Online Consumers Really Value Free Product Returns?" *Journal of Operations Management* Vol(53-56, 1), Nov, 45-62
15. Bellos, I., Ferguson, M., and B. Toktay, 2017, "To Sell and to Provide? Interaction of Business Model Choice and Product Line Design" *Manufacturing and Service Operations Management* 19(2), 185-201
16. Yilmaz, O., Pekgun, P. and M. Ferguson, 2017, "Would You Like to Upgrade to a Premium Room? Evaluating the Benefit of Offering Standby Upgrades" *Manufacturing and Service Operations Management*, 19(1), 1-18
17. Nicolae, M., Arıkan, M., Deshpande, V., and M. Ferguson, 2017, "Do Bags Fly Free? An Empirical Analysis of the Operational Implications of Airline Baggage Fees" *Management Science* 63(10), 3187-3206

18. Pince, C., Ferguson, M., and B. Toktay, 2016, "Extracting Maximum Value from Consumer Returns: Allocating Between Selling Refurbished Product and Meeting Warranty Demand" *Manufacturing and Service Operations Management* 18(4), 475-492

19. Nicolae, M., Ferguson, M., and L. Garrow, 2016, "How Do Airline Passengers Value Itinerary Attributes? Differences Between Bag-Checkers and Non-Bag-Checkers" *Production and Operations Management* 25(10), 1689-1708

20. Agrawal, V., Ferguson, M. and G. Souza, 2016, "Trade-in Rebates for Price Discrimination and Product Recovery" *IEEE Transactions on Engineering Management* 63(3), 326-339

21. Hu, S., Souza, G., Ferguson, M. and W. Wang, 2015, "Capacity Investment in Renewable Energy Technology with Supply Intermittency: Data Granularity Matters!" *Manufacturing and Service Operations Management* 17(4), 480-494

22. Newman, J., Ferguson, M., Garrow, L., and T. Jacobs, 2014, "Estimation of Choice-Based Models Using Sales Data From a Single Firm" *Manufacturing and Service Operations Management* 16(2), 184-197

23. Ferguson, M. and S. Smith, 2014, "The Changing Landscape of Hotel Revenue Management and the Role of the Hotel Revenue Manager" (Practice Paper) *Journal of Revenue and Pricing Management* 13, 224-232

24. Ozdemir, O., Denizel, M., and M. Ferguson, 2014, "Allocation of Returned Products among Different Recovery Options through an Opportunity Cost Based Dynamic Approach" *Decision Sciences* 45(6), 1083-1116

25. Wang, W., Ferguson, M., Hu, S. and G. Souza, 2013, "Dynamic Capacity Investment with Two Competing Technologies" *Manufacturing and Service Operations Management*, 15(4), 616-629

26. Newman, J.P., Ferguson, M.E., and L. Garrow, 2013, "Estimating GEV Models with Censored Data". *Transportation Research Part B* 58, 170 - 184

27. Denizel, M., Ferguson, M., and L.B. Toktay, 2013, "Building Sustainability into Medical Aid Operations: An Efficient Frontier Approach to the Selection of Recipients for Medical Supplies Donations" *Operations Management Education Review* 7, 49 - 78

28. Newman, J., Ferguson, M., and Garrow, L. 2013, "Estimating Nested Logit Models with Censored Data" *Transportation Research Record* 2343: 62-67

29. Subramanian, R., Ferguson, M., and L.B. Toktay, 2013, "Component Commonality in Remanufacturing" *Production and Operations Management* 22(1), 36-53

30. Oraiopoulus, N., Ferguson, M., and L.B. Toktay, 2012, "Relicensing Fees as a Secondary Market Strategy" *Management Science* 58(5), 1022-1037

31. Agrawal, V., Ferguson, M., Toktay, L.B, and V. Thomas, 2012, "Is Leasing Greener than Selling?" *Management Science* 58(3), 523-533 (**2015 Winner for Best OM Paper in the journal Management Science for Years 2012 - 2014**)

32. Newman, J., Ferguson, M., and Garrow, L. 2012, "Estimating Discrete Choice Models with Incomplete Data" *Transportation Research Record* 2302, 130-137

33. Garrow, L., Ferguson, M., and R. Cross, 2012, "Breakthrough analytics for business acceleration" *Journal of Revenue and Pricing Management*, 11, 243-249

34. Bai, L., Alexopoulos, C., Ferguson, M., and K. Tsui, 2012, "A Simple and Robust Batch-Ordering Inventory Policy For Unobservable Demand" *Computers and Industrial Engineering* 63(1), 343-353

35. Ferguson, M., Garrow, L. and J. Newman, 2012, "Application of Discrete Choice Models to Choice-Based Revenue Management Problems: A Cautionary Note" *Journal of Revenue and Pricing Management* 11, 536-554

36. Ferguson, M., Fleischmann, M., and G. Souza, 2011, "A Profit-Maximizing Approach to Disposition Decisions for Product Returns" *Decision Sciences* 42(3), 773-798

37. Garrow, L., and M. Ferguson, 2011, "Satisfying the C-suite: What C-level officers expect and need" *Journal of Revenue and Pricing Management*, 10(6), 558-563 (Reviewed by the journal editor)

38. Queenan, C., Ferguson, M., and J. Stratman, 2011, "Revenue Management Performance Drivers: An Exploratory Analysis within the Hotel Industry" *Journal of Revenue and Pricing Management* 10(2), 172-188

39. Ferguson, M., 2010, "Making Your Supply Chain More Sustainable by Closing the Loop" *The European Business Review*, Nov-Dec, 28-31

40. Garrow, L., and M. Ferguson, 2010, "Take Advantage of Uncertainty: Play for Position as the Economy Rebounds" *Journal of Revenue and Pricing Management*, 9(2), 282-288 (Reviewed by the journal editor)

41. Intlekofer, K., Bras, B., and M. Ferguson, 2010, "Energy Implications of Product Leasing" *Environmental Science and Technology,* 44(12), 4409-4415

42. Denizel, M., Ferguson, M., and G. Souza, 2010, "Multi-period Remanufacturing Planning with Uncertain Quality of Inputs" *IEEE Transactions on Engineering Management,* 57(3), 394-404 (**2008 POMS Wickham Skinner best unpublished paper award**)

43. Su, C., Chang, Y., Ferguson, M. and J. Ho, 2010, "The Impact of Delayed Differentiation in Make-to-Order Environments" *International Journal of Production Research,* 48(19), 5809-5829

44. Ferguson, M., and C. Queenan, 2009, "Starting with Good Inputs: Unconstraining Demand Data in Revenue Management" *INFORMS Transactions on Education* 9(3), 180-187

45. Garrow, L., and M. Ferguson, 2009, "Staying Ahead of the Curve: Using Revenue Management to Help Survive an Economic Downturn" *Journal of Revenue and Pricing Management*, 8(2), 279-286, (Reviewed by the journal editor)

46. Bodea, T., Ferguson, M., and L. Garrow, 2009, "Choice-Based Revenue Management: Data From a Major Hotel Chain" *Manufacturing and Service Operations Management*, 11(2), 356-361

47. Ferguson, M., Guide, V.D., Koca, E., and G. Souza, 2009, "The Value of Quality Grading in Remanufacturing" *Production and Operations Management* 18(3), 300-314

48. Manikas, A., Y. Chang, and M. Ferguson, 2009, "BlueLinx Can Benefit From Innovative Inventory Management Methods for Commodity Forward Buys" *Omega*, 37(3), 545-554

49. Metters, R., Queenan, C., Ferguson, M., Harrison, L., Higbie, J., Ward, S., Barfield, B., Farley, T., Kuyumcu, A., and A. Duggasanni, 2008 "The Killer Application of Revenue Management: Harrah's Hotel and Casino" *Interfaces*, 38(3), 161-175

50. Garrow, L., and M. Ferguson, 2008, "Revenue Management and the Analytics Explosion: Perspectives From Industry Experts" *Journal of Revenue and Pricing Management*, 7(2), 219-229 (Reviewed by the journal editor)

51. Ketzenberg, M. and M. Ferguson, 2008, "Managing Slow Moving Perishables in the Grocery Industry" *Production and Operations Management*, 17(5), 513-521

52. Queenan, C., Ferguson, M., Higbie, J. and R. Kapoor, 2007, "A Comparison of Unconstraining Methods to Improve Revenue Management Systems" *Production and Operations Management*, 16(6), 729-746

53. Agrawal, V. and M. Ferguson, 2007, "Bid-Response Models for Customized Pricing" *Journal of Revenue and Pricing Management,* 6(3), 212-228.

54. Ferguson, M. and O. Koenigsberg, 2007, "How Should a Firm Manage Deteriorating Inventory?" *Production and Operations Management*, 16(3), 306-321 (**2006 POMS Wickham Skinner runner up for best unpublished paper award**)

55. Ferguson, M., Jayaraman, V. and G. Souza 2007, "Note: An Application of the EOQ Model with Nonlinear Holding Cost to Inventory Management of Perishables" *European Journal of Operational Research*, 180, 485-490

56. Ferguson, M., Guide, V.D. and G. Souza, 2006, "Supply Chain Coordination to Reduce False Failure Returns" *Manufacturing and Service Operations Management*, 8(4), 376-393

57. Garrow, L., Ferguson, M., Keskinocak, P. and J. Swann, 2006, "Expert Opinions: Current Pricing and Revenue Management Practices Across U.S. Industries" *Journal of Revenue and Pricing Management*, 5(3), 248-250 (Reviewed by the journal editor)

58. Ferguson, M. and L.B. Toktay , 2006, "The Effect of Competition on Recovery Strategies" *Production and Operations Management*, 15(3), 351-368 (**2005 POMS Wickham Skinner best unpublished paper award**)

59. Ferguson, M., and M. Ketzenberg, 2006, "Information Sharing to Improve Retail Product Freshness of Perishables" *Production and Operations Management*, 15(1), 57-73

60. Ferguson, M., DeCroix, G. and P. Zipkin, 2005, "Commitment Decisions with Partial Information Updating" *Naval Research Logistics*, 52(8), 780-795

61. Su, C., Chang, Y., and M. Ferguson. 2005, "Evaluation of Postponement Strategies to Accommodate Mass Customization" *Journal of Operations Management*, 23(3-4), 305-318

62. Ferguson, M. 2003, "When to Commit in a Serial Supply Chain with Forecast Updating" *Naval Research Logistics*, 50(8), 917-936

63. Ferguson, M., Fieselman, C., and M. Elkins. 1997. "Manufacturing Concerns When Soldering with Gold Plated Component Leads or Circuit Board Pads" *IEEE Transactions on Components, Packaging, and Manufacturing Technology*, 20(3), 188-193

Working Papers

i. Papers in the Review Process

64. Kistler, J., Sharma, L. and M. Ferguson, "The Unintended Consequences of Health Policy: An Empirical Analysis of Opioid Prescribing Behavior" under review

65. Cho, S., J. Im, M. Ferguson and P. Pekgün, "Robust Demand Estimation with Customer Choice-Based Models for Sales Transaction Data" under review

ii. Papers in Progress

66. Bodea, T., and M. Ferguson, 2012, "Customer Segmentation for Customized Pricing in B2B Environments"

67. Ferguson, M., Ketzenberg, M., and R. Kuik, 2011, "Optimal Ordering Policies with Uncertain Cost and Uncertain Demand"

68. Held, C., and M. Ferguson, 2011, "The Impact of Incumbent Biasing on Procurement Performance"

69. Held, C., and M. Ferguson, 2011, "Repeat Interaction Procurement"
70. Ferguson, M., Garrow, M., Meterelliyoz, M., and J. Newman, 2010, "Multi-resource Revenue Management with Upgrades: A Comparison of EMSR-based and Choice-based Algorithms"
71. Ferguson, M., Garrow, M., Lee, M., Newman, J., and D. Post, 2012, "The Impact of Leisure Travelers' Online Search and Purchase Behavior"
72. Lystad, E., Alexopoulos, C., and M. Ferguson, 2006, "Single Stage Heuristics for Perishable Inventory Control in Two-Echelon Supply Chains"
73. Lystad, E., and M. Ferguson, 2006, "Where To Differentiate Your Product When Stocking Levels Are Coupled"
74. Ferguson, M., and S. Kavadias, 2006, "On the Interactions between Supply Chain Design Choices and Product Design Features"
75. Oh, S-K., Ferguson, M. and L.B. Toktay, 2007, "OEM Certification Programs for Remanufactured Products"
76. Lystad, E. and M. Ferguson, 2006, "Simple Newsvendor Heuristics for Multi-echelon Distribution Networks"

Publications in Refereed Conference Proceedings

1. Hagtvedt, R., Griffin, P., Ferguson, M., Jones, G., and P. Keskinocak, 2009, "Cooperative Strategies to Reduce Ambulance Diversion", *Proceedings of the 2009 Winter Simulation Conference,* M. D. Rossetti, R. R. Hill, B. Johansson, A. Dunkin, and R. G. Ingalls, eds.
2. Oraiopoulus, N., Ferguson, M., and L.B. Toktay, 2008, "Relicensing Fees as a Secondary Market Strategy" *Proceedings of the 2008 MSOM SIG Supply Chain Conference,* College Park, MD
3. Oraiopoulus, N., Ferguson, M., and L.B. Toktay, 2007, "Relicensing Fees as a Secondary Market Strategy" POMS Conference Accepted Full Length Papers: http://www.poms.org/Meeting2007/CDProgram/Topics/full_length_papers.htm
4. Ferguson, M., and S. Kavadias, 2006, "On the Interactions between Supply Chain Design Choices and Product Design Features," *Proceedings of the 2006 Multi-Echelon Conference,* Atlanta, GA
5. Ferguson, M. and B. Toktay, "Manufacturer Strategies in Response to Remanufacturing Competition" *Proceedings of the 2006 MSOM Conference,* Atlanta, GA
6. Crystal, C., Ferguson, M., and J. Stratman, "Measuring the Impact of Revenue Management" *Proceedings of the 2005 DSI Conference,* San Francisco, CA
7. Ferguson, M., DeCroix, G. and P. Zipkin, "Commitment Decisions with Partial Information Updating" *Proceedings of the 2002 MSOM Conference*, Cornell University, Ithaca, NY

C. PRESENTATIONS

Academic Invited Seminars

1. University of Colorado, Boulder, CO, April 2022
2. Ball State University, Muncie, IN, October 2021
3. George Mason University, Alexandria, VA, October 2020
4. Indiana University (senior scholars webinar series), IN, May 2020

   https://www.youtube.com/watch?v=ie5Xk7PlZ7Q
5. Oregon State University, Corvalis, OR, March 2020

6. Clemson University, Clemson, SC, February 2020
7. Texas A&M University, College Station, TX, November 2019
8. Old Dominion University, Norfolk, VA, November 2019
9. Arizona State University, Tempe, AZ, October 2019
10. University of Massachusetts at Amherst, MA, October 2019
11. Rutgers University, Newark, NJ, September 2019
12. University of Auckland, Auckland, NZ, August 2019
13. University of California, Irvine, June 2019
14. Baruch University, New York City, April 2019
15. University of Toronto, Toronto, March 2019
16. Boston University, Boston, October 2018
17. Széchenyi University, Budapest, Hungary, September 2018
18. University of Loyola, Chicago, November 2018
19. University of Luxembourg, June 2018
20. University of Florida, Gainesville, April 2018
21. Penn State University, State College, April 2018
22. University of Nebraska, Lincoln, March 2018
23. Mannheim University, Mannheim, Germany, May 2017
24. North Carolina State University, College of Management, Raleigh, NC, October 2016
25. George Washington University, Washington, D.C., April 2016
26. University of Minnesota, School of Industrial Engineering, Minneapolis, MN, March 2015
27. Clemson University, College of Management, Clemson, SC, March 2015
28. University of Minnesota, Carlson School of Management, Minneapolis, MN, Dec 2014
29. EBS University, Wiesbaden Germany, October 2014
30. MIT-Zaragoza, Zaragoza Spain, June 2014
31. University of Illinois College of Business, Champaign, IL, March 2014
32. University of Utah, David Eccles School of Business, Salt Lake City, UT, Feb 2014
33. University of Alabama, Culverhouse College of Commerce and Business, Tuscaloosa, AL, Nov 2013
34. USC/Syracuse Continuous Improvement Conference, Syracuse, NY, Oct 2013
35. University of Michigan, Ross School of Business, Ann Arbor, MI, Sept 2012
36. University of Groningen, Groningen, Netherlands, June 2012
37. University of Virginia, Darden School of Business, Charlottesville, VA, April 2012
38. INSEAD, Fontainebleau, FR, March 2012
39. Purdue University, Krannert School of Management, West Lafayette, IN, October 2010
40. Wilfrid Laurier School of Business, Waterloo, Canada, October 2010
41. MIT-Zaragoza, Zaragoza Spain (PhD research seminar class), July 12 – July 21, 2010

42. University of North Carolina, Dept of Statistics and OR, Chapel Hill, NC, April 2010
43. Southern Methodist University, Cox School of Business, Dallas, TX, Feb 2010
44. Cornell University, College of Business, Ithaca, NY, October 2009
45. Sabanci University, College of Business, Istanbul, Turkey, May 2009
46. Stanford University, College of Business, Stanford, CA, March 2009
47. McGill University, College of Management, Montreal, Canada, April 2008
48. University of Maryland, Robert H. Smith School of Business, College Park, MD, October 2006
49. Notre Dame, Mendoza College of Business, South Bend, IA, September 2006
50. ITBA, Buenos Aires, Argentina, March 2006
51. Ivey School of Business, University of Western Ontario, London, Canada, September 2005
52. Singapore Technical University, Singapore, March 2005
53. Vanderbilt University, Nashville, TN, February 2001
54. Tulane University, New Orleans, LA, January 2001
55. University of Connecticut, Storrs, CN, January 2001
56. Georgia Tech, Atlanta, GA, January 2001
57. University of South Carolina, Columbia, SC, January 2001

Industry Invited Seminars

1. Columbia Rotary Club: Why Are Global Supply Chains So Broken, September 2021
2. Michelin Global Supply Chain Summit: Human Biases in Decision Making, April 2021
3. South Carolina Business Review: The Pandemic Shapes the Supply Chain, June 2020
   https://www.southcarolinapublicradio.org/post/pandemic-shifts-supply-chain
4. Darla Moore School of Business – Managerial Insights Series, June 2020
   https://youtu.be/z1PX6G84qVM
5. "Opportunities and Challenges in Supply Chain Research Collaboration. International and Local Perspectives from Business and Academia" After Five talk at the University of Auckland's Center for Supply Chain Management Annual Symposium, Auckland, New Zealand, July 2019
6. "Revenue Management Opportunities in Supply Chain Management" Keynote talk at the ProLogitech Summit and Expo, Guayquill, Ecuador, June 2019
7. "Analytics Solutions to the Promotional Display Question" Webinar to customers of Oracle Retail, Boston, MA, Oct 2018
8. "Building More Sustainable Supply Chains" Keynote talk at the University of Auckland's Center for Supply Chain Management Annual Symposium, Auckland, New Zealand, Sept. 2017
9. "The New World of Analytics in Supply Chains" IBM's Supply Chain Analytics Workshop, Columbus, OH, Oct 2015
10. "Demand Shaping: Moving Manufacturing from Reactive to Proactive" Keynote Talk at the South Carolina Chamber of Commerce Manufacturer's Conference, Greenville, SC, Feb 2015
11. "What is the Value of Offering a Money Back Guarantee?" Reverse Logistics Association Annual Meeting, Las Vegas, NV, Feb 2015

12. "What is the Value of Offering a Money Back Guarantee?" Consumer Returns Conference, Dallas, Sept 2014
13. "Making the Most Out of Consumer Returns" Consumer Returns Conference, Dallas, Sept 2013
14. "Counter Intuitive Results from Sustainable Supply Chains" Worldwide Webcast as part of Accenture's Sustainability24 event, May 2011
15. "Pricing in B2B Markets" Quarterly Supply Chain Counsel Meeting, Eaton Corporation, Chicago, IL, April 2011
16. "Consumer Returns and Secondary Market Strategies" Reverse Logistics Association Annual Conference, Las Vegas, NV, February 2011
17. "Choice-Based Revenue Management and Customized Pricing Models" PROS research series, Houston TX, December 2010
18. "State of the Practice" Consumer Returns Conference, Dallas, TX, Oct 2010
19. "Multi-resource Revenue Management with Upgrades." 50th Annual Meeting of the Airline Group of the International Federation of Operational Research Societies, Nice, France, Sept 2010
20. "Current Research on Consumer Returns" Consumer Returns Roadshow, Chicago, IL, May 2010
21. "Choice-Based Revenue Management: A Hotel Perspective" SAS research series, Cary NC, April 2010
22. "Using Pricing Analytics in B2B Selling Opportunities" Keynote talk at the Rome Chamber of Commerce Meeting, Rome, GA, November 2009
23. "Consumer Returns: Reduce and Remarket" Reverse Logistics Association Seminar, Atlanta, GA, October 2009
24. "A new methodology for solving the no purchase problem in choice-based revenue management." 49th Annual Meeting of the Airline Group of the International Federation of Operational Research Societies, Atlanta, GA., Sept 2009, **Winner of "best technical" presentation.**
25. "Choice-Based Revenue Management: A Hotel Perspective" Airline Group of the International Federation of Operational Research Societies (AGIFORS) Revenue Management Conference, Amsterdam, NL, May 2009
26. "Current Research in Pricing and Revenue Management" Deloitte Consulting's Pricing Workshop, Atlanta, GA, September 2007
27. "A Comparison of Unconstraining Methods to Improve Revenue Management Systems" Eye-For-Travel Revenue Management Conference, Miami, FL, April 2005
28. "The Future of Revenue Management" Manugistic's Revenue Management Summit, Rockville, MD, October 2004
29. "Price Experimentation via the Internet" NCR's Email Marketing Conference, Atlanta, GA, September 2004
30. "A Comparison of Unconstraining Methods to Improve Revenue Management Systems" Manugistic's Revenue Management Summit, Rockville, MD, October 2003

D. OTHER SCHOLARLY ACCOMPLISHMENTS

Patent

1. Ferguson, M., Elkins, M. Fieselman, C., Graham, S., and J. Poole (1996), United States Patent 5,394,609, "Apparatus for Assembling PCMCIA Printed Circuit Cards," March 17

IV. TEACHING

A. INDIVIDUAL STUDENT GUIDANCE

Post-doctoral Fellows

- Cerag Pince (with Beril Toktay) December 2010 – July 2011
- Jeffrey Newman (with Laurie Garrow) December 2009 – August 2013
- Misuk Lee (with Laurie Garrow) September 2009 – May 2010
- Melike Meterelliyoz (with Laurie Garrow) September 2008 – December 2009
- Se-Kyoung Oh. (with B. Toktay, supported by NSF grant DMI-0522557) August 2006-Sept 2007

Doctoral Students: Chair or Co-chair

- Sanghoon Cho (with Pelin Pekgun), Thesis title: *Demand and Cluster Estimation in Travel and Hospitality,* Expected to Graduate in May 2022. Position after graduation: Texas Christian University.
- Justin Kistler (with Luv Sharma), Thesis title: *Operational Drivers of Hospital and Physician Adaptation to Industry Change,* Graduated in May 2020. Position after graduation: University of Tennessee.
- Olga Pak, Thesis title: *Three Essays on Optimization and Decision-Making Solutions in Retail Operations,* Graduated in December 2019. Position after graduation: Penn State University.
- Ovunc Yilmaz (with Pelin Pekgun, USC), Thesis title: *Essays in Revenue Management,* Graduated in June 2017. Position after graduation: Notre Dame University.
- Erin McKie (with Michael Galbreth, USC), Thesis title: *Essays in Sustainable Operations,* Graduated in June 2017. Position after graduation: Ohio State University.
- Mariana Nicolae, (USC), Thesis title: *Essays in the Airline Industry,* Graduated in June 2013. Position after graduation: Eastern Michigan University.
- Cigdem Ataseven, (with Anand Nair, USC), Thesis title: *Essays on Food Banks, Operational Issues and the Role of Supply Chain Integration,* Graduated in August 2013. Position after graduation: Cleveland State University.
- Chris Held, (GT), Thesis title: "*Repeat Interaction Procurement*" Graduated in December 2011. Position after graduation: McKinsey Consulting.
- Vishal Agrawal (with Beril Toktay, supported by NSF grant DMI-0620763 and winner of the Aspen Institute's Best Dissertation Proposal Award, GT) Thesis title: "*Essays in Sustainable Operations"* Graduated in June 2010. Position after graduation: Georgetown University.
- Francisco Hederra (with Christos Aloxopoulos, GT) Thesis title: "*Inventory Policies for a Single Echelon Periodic Review System with Two Supply Nodes"* Graduated in September 2007. Position after graduation: Chilean Navy
- Carrie Crystal Quennan (with J. Stratman, GT) Thesis title: "*Revenue Management Performance Drivers: An Empirical Analysis in the Hotel Industry",* Graduated in August 2007. Position after graduation: Notre Dame University.
- Erik Lystad, (GT), Thesis title: "*Simple Newsvendor Heuristics for Multi-echelon Distribution Networks"* Graduated in September 2006. Position after graduation: BlueLinx.

Doctoral Students: Committee Member

- USC: Zhihao "Terry" Zhang, MGSC, Ivey - Western University: Foad Hassanmirzaei, Management Science, USC: Guangzhi Shang, MGSC. Georgia Tech: Stacey Mumbower, CEE, Chanjo Lee,

ISYE; So Yeon Chun, ISYE; Byungsoo Na, ISYE; Taesu Cheong, ISYE; Kan Wu, ISYE; Yang Zhang, ISYE; Frederick Zahrn, ISYE; Altan Gulcu, ISYE; Nektarious Oraiopoulus, MGT; Mike Hewitt, ISYE; Okan Ozener, ISYE; Evren Ozkaya, ISYE; Emrah Uyar, ISYE; Serhan Duran, ISYE; Divya Mangotra, ISYE; Ray Hagtvedt, ISYE; Fellipe Roman, ME; Tudor Bodea, CEE; Dan Iliescu, CEE; Ozgun Demirag, ISYE; Pelin Pekgun, ISYE; Juan Morales, ISYE; Sanjiv Erat, MGT; Melda Ormeci, ISYE; Matt Drake, ISYE; Jason Aughenbaugh, ME; Gwen Malone, ISYE; Karin Boonlertvanich, ISYE; Jianbin Dai, ISYE; Eda Ziya, ISYE; Stephanie Jernigan, ISYE; Jack Su, MGT; Pairote Balun, ISYE; German Mendoza, ISYE

Masters Students: Chair or Co-chair

- Koji Intlekofer (with Bert Bras from ME, supported by NSF grant DMI-0620763) Thesis title: "*Environmental Implications of Leasing"* Graduated in November 2009.

Undergraduate Students: Chair or Co-chair of Honors Thesis

- Ashley Hannon: "The Value of the Global Supply Chain and Operations Management Capstone Consulting Course on Graduate Careers" 2018
- Jessica Theirgartner, Samantha Kear and Miller Love: "*Disaster Relief Mobile Coordination Application*" 2017 (This team won Fan Favorite at annual Proving Ground competition held at the Moore School of Business. The team was one of three winners at this competition from a total of over 50 teams that entered)
- Brett Ward, Thesis title: "*Better Coordination of Disaster Relief"* 2016.
- Matt Johnson, Thesis title: "*Better Coordination of Disaster Relief"* 2016
- Katherine Dail, Thesis title: "*Functional Space Management in the Hospitality Industry"* 2014

B. OTHER TEACHING ACTIVITIES

Pedagogical Materials Developed

1. Ferguson, Mark and Erica Plambeck, 2008, "Teaching Note for Interfaces' Evergreen Services Agreement"

Normal Teaching Load

USC: (averages over all sections taught)

MGSC 894: Doctoral Seminar in Management Science; S12, F13, S14, F16, S19 (5 students, NA)
MGSC 778: Revenue Management; S12, S13, F13, S15, S16, S17, S18 (60 students; 4.3/5.0)
MGSC 491: Supply Chain Management: S14 (36 students; 4.2/5.0)
MGSC 486: Service Operations Management; F11, S12, F12, F14, S16, S17, F18 (60 students; 4.4/5.0)
IBUS 490G: Business in Germany; S16, S17, S18, S19 (20 students, 4.9/5.0)
Georgia Tech: (averages over all sections taught)
MGT 6400TS: Pricing Analytics and Rev Mgt; S10, S11 (60 students; 4.7/5.0)
MGT 6400EM: Pricing Analytics and Rev Mgt (evening MBA); S10, S11 (32 students; 4.6/5.0)
MGT 4742: Technology and Management Capstone Project; S10, S11 (30 students; 4.4/5.0)
MGT 6753 (3 sessions): Principles of Management; S07 - S11 (70 students, NA*)
MGT 6362: Supply Chain Modeling and Rev Mgt; S07, S08, S09, (55 students; 4.8/5.0)
MGT 6352: Operations Practicum in Costa Rica; S08, (15 students; 4.3/5.0)
MGT 6350: Operations Management; S03 – S07 (71 students; 4.2/5.0)

MGT 6362: Supply Chain Modeling and Rev Mgt; S03 – S07 (27 students; 4.7/5.0)
MGT 8803: Operations Practicum in Costa Rica\Ireland; S07 (31 students; 5.0/5.0)
MGT 8803: Operations Practicum in Argentina: S06 (13 students; 5.0/5.0)
MGT 8803: Operations Practicum in Singapore; S05 (10 students; 4.9/5.0)
MGT 8855: Doctoral Seminar; 6 students; S03, F04 (6 students; NA*)
MGT 3501: Operations Management; S02 53 students; 4.7/5.0

*NA = Because of class size or only teaching part of a class, no evaluations are available

Executive Teaching

- Intermediate Business Analytics, 2-week program for U.S. Army (taught three times total in 2021-22)
- Two guest lectures (June 2020 and October 2020) for Chungnam National University
- Predictive Analytics, Part of 4-week Business Analytics Certificate program for U.S. Army, (taught twelve times total from 2016 - 2022)
- Senior Leaders Introduction to Business Analytics for U.S. Army, (2017, 2018, 2019, 2020)
- Supply Chain Management Principles – Two-day program for Duracell, Nov 2018
- Advanced Analytics, Part of 4-week Business Analytics Certificate program for U.S. Army, (taught once in 2018)
- Supply Chain Management in South Carolina, Brazil Program, DMSB, 2015
- An Introduction to the Science of Forecasting with Price and Substitution Effects, Professional Pricing Society Annual Conference, Chicago, 2014
- Custom Program on Demand Sensing and SIOP, NCR 2011
- Custom Program on Material Replenishment Strategies, Honeywell (Four - 2 day programs) 2011
- Custom Program on Supply Chain Leaders Development, Coca-Cola (2 weeks) 2010, 2011
- "Global Strategy Project" Capstone project for the Global Executive MBA class; 2009, 2010
- IMBA 6260 - "Global Supply Chain Management" Global Executive MBA class; 2009, 2010
- "Introduction to the Models used in Revenue Management and Price Optimization" workshop at the Revenue Management and Price Optimization conference co-hosted by Georgia Tech and Revenue Analytics; 2008, 2009, 2010, 2011
- "Inventory Management" course in Executive Masters for International Logistics (EMIL); June 2008, October 2008, April 2010.
- "Competitive Pricing" workshop at the Revenue Management and Price Optimization conference co-hosted by Georgia Tech and Revenue Analytics; October 2007
- "Unconstraining Demand Data" workshop at the Revenue Management and Price Optimization conference co-hosted by Georgia Tech and Revenue Analytics; October 2007
- "Information Systems in Manufacturing" course in Executive Masters for International Logistics (EMIL); September 2006.
- "Los Andes Executive MBA: Operations Management Module"; Georgia Tech College of Management Executive Education; May, 2004.
- "BellSouth: Supply Chain Management"; Georgia Tech College of Management Executive Education; May, 2003.

V. SERVICE

A. PROFESSIONAL CONTRIBUTIONS

Editorial

Co-Editor-in-Chief: *Decision Sciences Journal*, May 2017 – July 2020

Senior Editor: *Production and Operations Management,* Sept 2014 – 2021 (received outstanding SE award in 2016)

Special Issue Editor: *Journal of Revenue and Pricing Management,* INFORMS Revenue Management and Pricing Section Annual Issue, Dec 2012 – Sept 2013

Special Issue Co-Editor: *Production and Operations Management,* New Product Development, Innovation and Sustainability, Dec 2009 – Sept 2012

Associate Editor, *Manufacturing and Service Operations Management,* Dec 2012 – 2019 (received 2015 M&SOM Meritorious Service Award)

Associate Editor: *Decision Sciences Journal*, August 2011 – 2017

Editorial Review Board: *Production and Operations Management,* April 2008 – 2014

Guest Associate Editor: *Interfaces*, Special issue on Humanitarian Applications: Doing Good with Good OR, June 2009 – June 2010

Guest Associate Editor: *INFORMS Transactions on Education*, Special issue on Teaching Service and Retail Operations Management, July 2009 – July 2010

Guest Associate Editor: *Production and Operations Management*, Special issue on Operations Management in Business to Business Markets: Practice and Research, Dec 2007 – Dec 2008

Associate Editor: *IIE Transactions*, Supply Chains, May 2006 – Dec 2011

Referee for Journals

- *Decision Sciences, Electronic Commerce Research Journal, European Journal of Operational Research, IEEE Transactions in Engineering Management, IIE Transactions, International Journal of Operations and Production Management, International Journal of Production Economics, International Journal of Production Research, Journal of Operations Management, Management Science, Manufacturing and Service Operations Management, Marketing Science, Naval Research Logistics, Operations Research, Production and Operations Management, IBM Research Journal*

Referee for Publishers

- Series Editor for Business Expert Press for Business Analytics series (2013 – present). Consulting editor for over 15 books published in the series Big Data, Business Analytics, and Smart Technology
- Reviewed MBA textbook Managing Supply Chains – Concepts, Tools, and Applications by Ananth Iyer for McGraw Hill (2010)
- Reviewed chapter for the textbook Principles of Supply Chain Management: A Balanced Approach, 2nd Ed. by Wisner, Leong, and Tan for Cengage (2007)
- Edited solutions manual for the textbook Integrated Operations Management by Hanna and Newman for Thomson (2006)
- Reviewed MBA textbook Matching Supply with Demand by Cachon and Terwiesch for McGraw Hill (2006)

- Reviewed textbook Integrated Operations Management by Hanna and Newman for Thomson (2005)
- Reviewed MBA textbook Operations Management for Competitive Advantage by Chase, Jacobs, and Acquilano for McGraw Hill (2004)
- Reviewed textbook Designing and Managing the Supply Chain by Simchi-Levi, Kaminsky, and Simchi-Levi for McGraw Hill (2004)
- Reviewed MBA textbook Matching Supply with Demand by Cachon and Terwiesch for McGraw Hill (2003)

Service in Professional Organizations

- *Officer*, Vice President of Member Activities, POMS, 2016-2019
- *Chair*, POMS Paul Kleindorfer Award in Sustainability, 2016-2017
- *Board Member*, INFORMS Sections and Subdivisions Council, 2014-2016
- *Review Committee*, MSOM Fellows Award, 2014-16, 2018-19
- *Officer*, President Elect and President, MSOM, 2012-2014
- *Officer*, Board Member, INFORMS Revenue Management and Pricing Section, 2012-2013
- *Officer*, Chair-Elect and Chair, INFORMS Revenue Management and Pricing Section, 2010-2012
- *Officer*, President Elect and President, POMS Supply Chain College, 2010-2012
- *Officer*, Vice President of Meetings, MSOM, 2010-2011
- *Review Committee*, AGIFORS Best Paper Award, 2012
- *Review Committee*, JFIG Best Paper Award, 2009
- *Review Committee*, MSOM Conference, 2008, 2009
- *Officer*, Vice President of Special Events, POMS Supply Chain College, 2007-2010
- *Review Committee*, MSOM Best Student Paper Award, 2007, 2008, 2010, 2011, 2016
- *Review Committee*, DSI Best Dissertation Award, 2007
- *Review Committee*, INFORMS Prize, 2007 - 2010
- *Chair*, POMS College of Sustainable Operations Best Paper Award, 2007
- *Review Committee*, POMS Wickham Skinner Best Paper Award, 2007
- *Board Member*, INFORMS Revenue Management and Pricing Section, 2006-2008
- *Vice President and Media Coordinator* – INFORMS Junior Faculty Group (JFIG), 2002-2004

Conference/Workshop/Session Organization

Conference Chair or Co-Chair

- Workshop on Closed Loop Supply Chains held in Charleston, SC in October 2013 with over 50 academic participants (co-chair with Michael Galbreth)
- Program Chair – 2013 POMS National Conference, Denver Colorado
- Workshop on Closed Loop Supply Chains held at Georgia Tech in October 2008 with over 60 academic participants (co-chair with Beril Toktay)
- Manufacturing and Service Operations Management (MSOM) – Supply Chain Special Interest Group Conference, June 7, 2008, College Park, MD (co-chair with Beril Toktay and Pinar Keskinocak).
- Manufacturing and Service Operations Management (MSOM) Conference, June 19-20, 2006, Atlanta, GA (co-chair with Pinar Keskinocak from ISYE). This was the 10th annual conference for the largest subdivision of INFORMS; attended by over 300 academic and industry professionals
- Chair of annual industry workshops on Dynamic Pricing and Revenue Management (April 2005, May 2006, Oct. 2007, Nov. 2008, Oct. 2009, Oct 2010), Georgia Tech College of Management. These

workshops focused on high-level industry speakers and averaged approximately 150 industry professionals in attendance

- Chair of an internal academic workshop on Dynamic Pricing and Revenue Management (2004), Georgia Tech College of Management. Those in attendance included over 35 faculty and doctoral students from five disciplines and three participants from industry

Cluster chair

- Green Supply Chains, INFORMS, San Diego, CA, October 2009
- College of Supply Chain Management, POMS National Meeting, San Diego, CA, May 2008
- Closed Loop Supply Chains, POMS National Meeting, Dallas, TX, April 2007
- Closed Loop Supply Chains, POMS National Meeting, Chicago, IL, April 2005
- Revenue Management and Pricing Section, INFORMS, Atlanta, GA, October 2003

Other Conference Activity

- Co-organizer for industry workshop on Product Re-X: Reuse, Recycling, Recovery, Remanufacturing Innovations in Business Models, Product Design and Economic Development (2006), Georgia Tech College of Management. This one-day workshop was attended by over 100 academic and industry professionals (chair was Beril Toktay)
- Reviewer for International Conference on Operations and Supply Chain Management, Bali, Indonesia, December, 2005
- Helped organize a symposium on the future of Electronics Recycling (2005), Georgia Tech College of Management. This symposium brought together private recyclers and government agencies to discuss ideas for how to keep electronic waste out of U.S. landfills and from creating health risks in third world countries

B. CAMPUS CONTRIBUTIONS

- (USC) Chair of the DMSB Business Analytics Committee (2015 – 20)
- (USC) Chair of the Masters of Business Analytics Task Force (2019 – 20)
- (USC) University Search Committee for Business Intelligence Strategist (2018-19)
- (USC) University Committee on Information Technology (2016 – 2017)
- (USC) University Search Committee for Executive Director of the Office of Inst Research (2015-16)
- (USC) University Committee on Tenure and Promotions (2015 – 2017)
- (USC) DMSB Doctoral Programs Committee (2012 – 2017)
- (USC) Chair of Business Analytics Committee (2013 – 2018)
- (USC) DMSB Undergraduate Programs Committee (2013 – 2017)
- (USC) Chair of Clinical Faculty Search Committee (2013 – 2014)
- (USC) Member of the President's Sustainability Council (2012 - 2014)
- (USC) Tenure Track and Clinical Faculty Search Committees (2012 - 2014)
- (USC) Director of the Sustainable Enterprise and Development Initiative (2012 – 2014)
- (USC) Chair of Tenure Track Faculty Search Committee (2011 – 2012)
- (USC) PhD Director for the Management Science Dept (2011 – 2017)
- (USC) Chair of the Management Science Dept. Faculty Search Committee (2011 - 2012)
- (USC) Dean's Advisory Committee (2011 – 2012)
- (GT) Faculty Review Committee for Distance Learning Proposals (2009)
- (GT) Provost's Taskforce on Undergraduate Minors (2009)
- (GT) Recruiting Committee for Professor of Practice Position in Real Estate (2009)
- (GT) *Chair*, Technology and Management Program Curriculum Committee (2007-08)

- (GT) Recruiting Committee for Chaired Position in Finance (2007-08)
- (GT) Provost's Taskforce on Undergraduate Education Broadening (2007-08)
- (GT) Recruiting Committee for Mechanical Engineering, GT Savanah Campus (2006-07)
- (GT) Flex-MBA Committee (2006-07)
- (GT) Faculty Liaison Committee (2006-07)
- (GT) MBA Committee (2004-06, 07-08)
- (GT) Faculty Development Committee (2002-04)
- (GT) Professional Environment Committee (2003)

VI. GRANTS AND CONTRACTS

A. AS PRINCIPAL OR CO-PRINCIPAL INVESTIGATOR (TOTAL TO DATE > $11,800,000)

- Oracle AI Labs Research Grant on Customized Hotel Room Pricing and Options, 2019, (**$90,000**), Mark Ferguson (Co-PI), Pelin Pekgun (Co-PI)
- Oracle Retail Research Grant on Optimizing Special Promotional Space in Retail Stores, 2017, (**$90,000**), Mark Ferguson (PI)
- Oracle Retail Research Grant on Optimizing Special Promotional Space in Retail Stores, 2016, (**$90,000**), Mark Ferguson (PI)
- Oracle Retail Research Grant on Customer Behavior Based Targeted Promotions as Predictors of Profitability in Repeat Online and In-Store Retail Transactions, 2013, (**$90,000**), Mark Ferguson (PI)
- Business Analytics Initiative, Moore School of Business at the University of South Carolina, 2013, (**$300,000**) from corporate donations, Mark Ferguson (co-PI), Michael Galbreth (co-PI)
- NSF Grant DMI-1130745: "Integrating Flexible Discrete Choice and Revenue Management Models," DMII-SEE program, 2011 (**$325,000**), Laurie Garrow (PI), Mark Ferguson (co-PI)
- Program support for the Technology and Management Program averaging (**$560,000** from 2008 - 2011) from Siemens, Cox Communications, Georgia Pacific, Caterpillar, Timken, Interface, and Newell Recycling.
- Development grant for the Technology and Management Program (**$10,000,000**), Steven A. Denning (private donor) $5M in 2007 and $5M in 2010. This program combines selected undergraduate engineering and management students to learn the other group's discipline and to participate in interdisciplinary group projects, activities, and courses.
- "Revenue Management Focus Area," (**$235,000** industry award in 2007 – 2011 from Revenue Analytics) from the proceeds of the annual Georgia Tech Price Optimization and Revenue Management workshop
- NSF Grant DMI-0620763: "Decision Support for Improved Financial and Environmental Performance of Product Leasing," DMII-Service Enterprise Engineering program, 2006 (**$300,000**), Mark Ferguson (PI), Beril Toktay (co-PI), Bert Bras (co-PI)
- Company Sponsorships (totaling **$12,500**) for the 2006 MSOM meeting from SAS, United Airlines and IBM
- Focused Research Area in "Enterprise Strategies for Expanding Closed Loops in Production Systems" (**$30,000** university seed money in 2005, **$15,000** in 2006), Beril Toktay (FRP Coordinator), Mark Ferguson, Nancey Greene, Jane Ammons, Bert Bras, Matthew Realff and Ben Hill

- NSF Grant DMI-0522557: "Enterprise Strategies for Remanufacturing in the Presence of Competition and Environmental Policy," DMII-MES program, 2005 (**$300,000**), Beril Toktay (PI), Mark Ferguson (co-PI), Bert Bras (co-PI)
- "Revenue Management Focus Area," (**$25,000** industry award in 2005 from Revenue Analytics)
- "Revenue Management Focus Area," (**$5,000** industry award in 2004 from Revenue Analytics)
- Focused Research Area in "Dynamic Pricing and Revenue Management" (**$26,000** in 2004), Mark Ferguson (FRP Coordinator), Pinar Keskinocak and Paul Griffin.
- "Revenue Management Focus Area," (**$10,000** industry award in 2004 from Manugistics)

VII. HONORS AND AWARDS

- 2021 Fellow of the Decision Sciences Institute
- 2017 M&SOM Distinguished Service Award
- 2016 Outstanding Senior Editor at Productions and Operations Management Journal
- 2015 M&SOM Meritorious Service Award for Associate Editor Work
- 2015 Jo van Nunen Pioneer in Closed-Loop Supply Chain Research Award
- 2015 Winner for Best OM Paper in the journal Management Science for Years 2012 - 2014
- 2010 College of Management Hesburgh Award Teaching Fellow, Georgia Tech
- Winner of "best technical" presentation at the 49th Annual Meeting of the Airline Group of the International Federation of Operational Research Societies, Atlanta, GA., Sept 2009
- Nominated by the Georgia Tech College of Management for the University Level Interdisciplinary Activities Award in 2007, 2008, and 2009
- Wickham Skinner best unpublished paper award presented at the 2008 POMS conference
- Runner up for Wickham Skinner best unpublished paper award presented at the 2006 POMS conference
- CETL "Thank a Teacher" award for MBA core operations management class, 2006
- Wickham Skinner best unpublished paper award presented at the 2005 POMS conference
- Third place nationally in 1999 J.F. Fogarty Student Paper Competition, sponsored by APICS
- Third Runner-up in the 2001 FedEx Publish and Prosper essay contest for Doctoral Candidates
- 1993-1994 IBM Future Manufacturing Leaders Fellowship

Mark Ferguson, My Professional Journey Narrative: While line items on a resume are good at summarizing past accomplishments, they do a poor job of describing the ethical and decision-making process of the candidate during the time these accomplishments were achieved. It is presented in chronological order.

Pre-college (1969-1987)

My biography is probably a bit different from most academics, and I think this difference gives me a better appreciation for what students from a variety of backgrounds must do to thrive in college. I grew up in a rural, blue collar family in southern Virginia. My father worked as a second shift foreman, and my mother ran the household, along with a one-acre garden that helped keep us fed. I got my first paying job at age nine and continued to work wherever I could throughout high school.

Whether I knew it or not at the time, this experience did more than just allow me to help my family, it also fostered confidence and an entrepreneurial spirit. Each summer, I would move in with my older sister to work on her family farm. I remember the sense of pride when I earned enough money at $5 a day to purchase my first new pair of Converse shoes and Levi's jeans, an undoubtedly frivolous purchase for a kid like me. Later, as I gained more experience as a farm hand, I would occasionally muster the courage to talk to the boss, my brother-in-law, and suggest ways we might improve operations. This was inevitably met with, "I don't pay you to think" or something similar, and I probably should have been more discouraged. Instead, I kept my curiosity up and my suggestions coming, and eventually was promoted to supervise a work team at the age of 15.

Later, when I saved enough money to buy a car, I realized that work also provides options. This car allowed me to explore other kinds of jobs a few miles away. These jobs, including roofing houses and helping manage a family-owned convenience store, helped me to both save for college and excel in school. I finished in the top 5% of my senior class and was accepted to the Virginia Tech University engineering school. As a first-generation college student, I don't honestly think I knew at the time what engineers do, but my dad thought I shared the problem-solving and analytical skills of the engineers he'd met at work, so that was good enough for me.

I soon learned that the costs of college would be daunting. One item – and IBM PS/2 computer the university required all engineering majors to buy - ended up costing more than my first semester's tuition, but that PC also led to an awakening about my potential future. I discovered a new office application called spreadsheets, and once I got the hang of it, I used it to help my sister modernize her farm's accounting system. This saved my sister several hours a day and made a real and practical difference in her business, but for me, it was groundbreaking. For the first time in my life, and despite what my brother-in-law and others had told me growing up, I knew that I could be paid "to think." I knew I could use my mind to solve problems.

Undergraduate years in Mechanical Engineering at Virginia Tech (1987-1991)

A successful first year of college (combined with economic necessity) meant I could start working in my first "real" engineering jobs. I took advantage of Virginia Tech's robust co-op program, a five-year program that allowed students to alternate semesters between paid engineering jobs and a full-time class schedule. I was placed as a design engineer at Newport News Shipbuilding in Newport News, VA. This placement was challenging and enlightening as I learned to juggle the logistics of college and a job, and managed to find my passion for both engineering and business.

I started my rotation working with a team of engineers on a Navy contract designing a new class of submarine. As exciting as it was to work on something so important – I even had to be screened for national security clearance – the highly specialized work was frustrating. Security protocols meant that each team was only allowed to see and work with their specific segment of the submarine. As someone who always likes to try to understand the bigger picture, I found the work a bit tedious.

Interestingly, the Newport News job provided an opportunity to pique my interest in the business side of engineering. Students were given new work rotations each year and my second rotation in 1988 was in Finance. I was wildly disappointed, until the HR manager told me I could have access to the department's first PC; after all, I was the only one who knew how to turn it on. This was my first

exposure to the management of a major company, and I loved it because the Finance department had a much broader exposure to all the various operations of the shipyard. The job also allowed me to better exercise my constant need for improving things and making processes more efficient. The accountants were adept at using the ticker tape calculators with one hand while writing entries with the other, and it would have taken years of practice for me to even approach their level of proficiency with these tools. However, in the first month working with the PC, I was able to create spreadsheets that could replicate their days work in only a few minutes each morning. Besides exposing me to the business side of an organization, this job provided the first glimpse of the potential power of office automation.

As valuable as the Newport News job was, the logistics and expense made it hard to continue. The Virginia Teach campus in Blacksburg is four hours from Newport News and I had to find new housing at each location every four months, which was proving to be prohibitively expensive. The good news was, my grades at Virginia Tech were high enough for me to qualify for some merit-based scholarships, so I decided to go back to college full-time in Blacksburg.

Back in Blacksburg, I landed a part-time junior engineering job at a Litton Poly-Scientific plant that manufactured small electrical devices called “slip rings.” I worked for a jack-of-all trades engineer who served as floor supervisor and manufacturing engineer. His demanding schedule and tight budget allowed me to develop this into a full-time job, and be given an unusual level of autonomy.

The firm produced security systems, which required our facility to assemble the printed circuit boards, which served as the electronic brains of the product. The emerging printed circuit board assembly technology at the time was to move from what was called “through-hole” manufacturing to “surface mount” manufacturing. The main advantage of the latter is that it allowed you to put components on both sides of a circuit board, potentially cutting the size of the final product in half. The task of setting up a new manufacturing line to accommodate this new technique fell to me, and I was given a budget of $100K to make it happen. I started by visiting every other manufacturer in the surrounding region that had already set up a surface mount manufacturing line (and that would let me tour their plant) but was dismayed to learn that most other plants had invested in the range of $500K - $1M to purchase the equipment needed for this process (a few years later at IBM we would budget around $3M per line). After presenting my benchmarking data to the leadership team, I was told that my budget couldn’t be increased, and I’d have to figure out how to make it work. Through the careful purchasing of used equipment, sometimes driving as far as New York State to broker deals, I was able to assemble a working manufacturing line and employee training program over a period of around six months. Looking back, with perspective, it is hard to believe that the company put so much in the hands of a 20-year old junior engineer.

There is one other somewhat random event from my undergrad days that ended up having a significant impact on my future career path. As engineering students do practically everywhere, we Virginia Techers typically looked down upon what we viewed as “easier” majors such as business. One of my friends had started the MBA program at Virginia Tech while I was still an undergraduate. I asked this friend what the most difficult MBA class was, with the intention that I’d take that class and show how easy it was compared to mechanical engineering. His answer was a core class called Management Science, and for some unknown reason, Virginia Tech allowed me, as an undergrad mechanical engineering student, to sign up for the class. This class was a lesson in humility, as I scraped by with a B+ in the class. One assignment in the class required me to go to the library stacks and select a paper published in the journal *Decision Sciences*, then present my analysis to the class. I found the articles in

this journal extremely difficult to understand and wondered what value could come from anyone writing what, to me, seemed such profuse gibberish. ---- years later, I became the Editor-in-Chief of this journal.

Since my grades were high and I'd managed to maintain them with basically a full-time job, several of my professors encouraged me to consider graduate school. At this point, my confidence had risen along with my ambition. I was interested in both the problem-solving aspects of engineering and the bigger picture aspects of business, so I applied for a new program that MIT had recently introduced called "Leaders of Manufacturing." The program combined a MS in engineering with an MBA from their Sloan School of Business, and it was one of the most selective masters level programs in the country. Admissions into the program required one to be accepted into both the Engineering college and the Sloan School. While I was accepted into the engineering college, I was turned down by Sloan because they typically required 4-5 years of fulltime work experience, after your undergrad, and I was applying directly out of my undergraduate degree. While I didn't end up in this program, the idea of combining engineering and business students in interdisciplinary classes together intrigued me and, 15 years later, I'd end up creating something along the same concept at Georgia Tech.

IBM years (1991-1996)

Any subjective assessment would probably conclude that my undergraduate experience was successful - excellent grades from a top engineering school and an unusual amount of practical work experience – but I was still naïve about how the professional world worked. The first time I ever boarded an airplane was for a second-round interview, and I was unprepared for both. I decided to start an MS degree in Industrial Engineering at Virginia Tech. It was a practical choice because the early 1990's stagnant economy limited job prospects, and I was amazed to learn you could get paid a stipend to attend graduate school.

During my first semester in the program, a friend told me that IBM was scheduling campus interviews for a manufacturing engineering position at their Charlotte, NC plant. I was not savvy about the job search process and called the placement office on the last day of interviews. Of course, I was told they had no slots available, but for some reason, maybe naiveite or developing confidence, I sent my resume anyway. Surprisingly, I got a call from the IBM recruiter, who said she was on her way to the airport, but she could meet with me for thirty minutes. In the brief interview, I learned that the IBM plant in Charlotte was one of the largest printed circuit board assembly plants in the country, and it was unheard of to find a fresh graduate with that specific niche of expertise. Not only that, but IBM had a program that would help pay for graduate school (I would later take advantage of this to earn an MS in Industrial Engineering from Georgia Tech). After a visit to the plant a week later, they offered me a job on the spot, and I left for Charlotte at the end of the semester. My work experience, although born of economic necessity, had really paid off this time.

As a manufacturing engineer supporting the surface mount assembly lines, I saw that the process was essentially the same as what I had experienced at Litton Poly-Scientific, but things moved much faster and the stakes were much higher. An equipment failure on an IBM line could result in hundreds of thousands of dollars in wasted product before the error was corrected. Manufacturing engineers carried beepers and were basically "on-call" 24 hours a day, seven days a week. I noticed early on that most of the manufacturing engineers spent their time fighting one fire after another, with little time devoted to

trying to understand the root causes of the problems. To be fair, each piece of equipment had tens to hundreds of different settings and the best settings depended on the specific product, the material and even the humidity level inside the plant each day. Early on, I operated in the same way because I didn't have the skill set to know how to approach the problems more scientifically.

I was very lucky though to meet one of the best mentors of my career, who introduced me to the lean six sigma practices, and in particular, statistical process control and design of experiments. These practices changed my life and helped me turn my lifetime inclination for process improvement into more of a science. It also helped me understand the world in a different, but profound way. That is, the measurements of every process can be separated into controllable versus uncontrollable variable components. The key to more effective process improvement is to distinguish between these two so that you spend your efforts on the controllable parts and are not misled by the uncontrollable variability of the outcomes. This is basically the scientific method that most students learn in grade school but applied in a statistical framework.

After being taught this new skillset (thankfully early in my career) I set out trying to employ it every chance I had. Overtime the late night and weekend calls started to diminish, as we became more proactive at fixing root causes rather than symptoms and predicting potential system failures in advance. The process was not without a learning curve though, and early on I learned something that has influenced my management philosophy ever since. The shop floor workforce at the plant was made up of two major groups, long-time IBM employees who typically oversaw a larger temporary work force that would be employed under 9-month contracts. Some of the IBM employees had been overseeing the same part of the manufacturing process for over 20 years and were the local "experts" on their piece of equipment. In hindsight, these workers were justifiably skeptical of any guidance from a rookie 21-year-old engineer coming straight out of undergrad. After learning the new toolset of design of experiments, I would come in during an off-shift time and run my experiments to find the best combination of machine settings that maximized throughput and quality. I'd then write up detailed procedures and conduct training sessions with the line workers on how to operate the equipment based on my new findings. After this exercise, I'd notice that the performance measures would tend to improve for about a week but then often revert to their historical means. When I'd investigate as to the reason for the lack of improvement, I'd often discover that the technicians working on the manufacturing floor would soon ignore my carefully crafted instructions and go back to using their prior judgement.

I quickly realized (thankfully) that no amount of additional training or better crafted procedure manuals was going to change this outcome. The root cause of the problem was more of a psychological one, the line workers did not feel any ownership of the new process and they expected that any improvements would be attributed to me rather than the whole team. After realizing this, I changed my tactics and started running most of my experiments during the day shift which allowed me to include the technicians in the process. Together, we would run the experiments, analyze the results, and develop an implementation plan (that made sense to them). Any praise for the resulting improvements were attributed to the team instead of an individual, and I worked with our plant manager to tie in financial rewards. After this change, the outcomes from the manufacturing line started improving significantly, and permanently. The lesson that has stuck with me to this day is that no matter how brilliant you are (or think you are), no individual can achieve major lasting improvement in a large organization on their own. Teamwork and buy-in is essential.

My early success as a manufacturing engineer allowed me to take on a more challenging role as a new process development engineer. In the new role, I worked to develop the manufacturing processes for new products, resulting in a U.S. patent for one of my ideas. IBM honored their commitment to send me back to graduate school and I spent the academic year of 93-94 earning my master's degree at Georgia Tech. My only work-related responsibility during this year was to represent IBM as one of the industry partners at Georgia Tech's Manufacturing Research Center, where we would evaluate grant proposals submitted by Georgia Tech faculty and award around $1M per year in research funds. During my year at Georgia Tech, several faculty members suggested to me that I continue and pursue my PhD. While tempted, and although I didn't have any signed contract to return to IBM, I felt morally obligated to return and provide some return on their investment in me.

One of my first assignment on my return to IBM was to join the materials management team as an inventory manager. More specifically, I was tasked with managing the numerous overages and shortages of the purchased components we needed to build our products. A few months into this new role, however, I was asked to join a small international team and live in Shenzhen China for three months to help start up IBM's first printed circuit card assembly plant in China. During the time of 1995, U.S. companies were required to produce locally in China (with at least a 50% Chinese partner) to be able to sell products within China. For someone with no previous experience traveling outside of the U.S., and knowing no Mandarin, this was an interesting experience. It also exposed me to the fast rise in globalization, how motivated the workforce was outside of the U.S., and how quickly other manufacturing plants were also being built around the Shenzhen area. I returned with a newfound respect for better understanding global cultures and the role that globalization will soon play in the U.S. manufacturing sector.

Returning to my job as an inventory manager brought back old memories of the "firefighting" I used to have to do as a manufacturing engineer. In 1995, the materials management systems at IBM did not connect with the systems at other plants (we had just started an SAP ERP implementation when I left in 1996) so most of what we today call supply chain management was done by downloading data from the system and sharing spreadsheets over fax or email between the different plants. Once a month, my counterparts at the other plants and I would travel to some common location around the world and spend three intense days trying to reconcile our inventory positions and order books. I knew only enough about supply chain management at the time to realize that it was the primary driver of profitability (or lack thereof) for a plant and that there had to be more scientific approaches that I was not aware of. Working 60-hour weeks just trying to keep the current process going, I also wanted time to think more about root causes and basic principles. Watching IBM start to divest its global manufacturing infrastructure was the final push I needed, and, on the advice of a colleague, I applied to the PhD program in Operations and Supply Chain Management at Duke University in 1996.

PhD program years at Fuqua School of Business, Duke University (1996-2001)

I've often described PhD programs to potential students as "mental bootcamps". A good program takes a student through several phases, first breaking down many pre-conceived notions the student has about the field of study before starting the long and never-ending education journey of building back the knowledge base from first principles. This process is often lonely and demoralizing but can also be incredibly rewarding with the right faculty mentors. My own experience was probably a bit lonelier than

most in that I was the only student in my program, as I was the only student accepted in the last five years. There were no more experienced students in the program when I started to help guide me through. Thankfully, there was a cohort of three other students starting the same program the same year at UNC. Because the universities were only 15 miles apart, Duke and UNC shared courses at the doctoral level, and I took most of my courses over at UNC for the first two years. There were also many other doctoral students in the other areas of the business school, whom I formed strong friendships with. My appreciation for cultural diversity grew during this time, as many of the fellow PhD students were international. It was also very humbling for someone who had historically been at the top of their quantitative classes to suddenly be taking classes with students with top national math achievement scores from other countries like China, India, and Israel. After my first year, the supply chain area started accepting one new student each year, so I had an earlier experience than most of mentoring new PhD students since I knew more about the actual process than most of the faculty did.

While the faculty in the supply chain area at Fuqua during the year when I joined would end up (in hindsight) being recognized as one of the most top-quality research groups in the world, with recognition came competition from other schools frequently poaching the professors. This resulted in an unusually high turnover rate such that, by my fifth year in the program, I had been at the school longer than any faculty member in my area, except for my primary advisor who had joined from Columbia University in 1995. With turmoil came opportunity, and my high scores from teaching the TA sessions resulted in my being the only PhD student in the school's history to be offered an opportunity to teach in the school's highly ranked fulltime MBA program. Since Duke does not offer an undergraduate business degree, there was traditionally little opportunity for PhD students to teach during their doctoral program. This struck me as odd that PhD students do not typically receive any training or opportunity to apprentice what will soon become a large part of their professional responsibilities in an academic career. Before my opportunity to teach an MBA class at Fuqua, I had tried to remedy this perceived deficiency by teaching some undergraduate classes at the business school of NC State and serving as a teaching assistant (TA) for many different classes at Fuqua, including some outside of my main discipline. This extra TA work, along with extra elective courses I took outside of my discipline, exposed me to the other functional areas of the business school, helping me later in my career when I would be charged with evaluation and promotion of the entire faculty at a business school.

First Faculty Job at the Business School of Georgia Tech (2001-2011)

Despite the high turnover in the faculty ranks at Fuqua, I was lucky to receive some good mentorship from many of the faculty members at both Fuqua and UNC that helped me build a solid research foundation. The quality of my dissertation work did not exactly take the academic research field by storm, but it at least showed enough potential for a few business schools to offer me tenure track faculty positions. From this set of offers, I accepted an assistant professor position in the Production and Operations Management Area at the business school of Georgia Tech. I knew Georgia Tech (and Atlanta) from my year as an MS student there and the university appeared to be supportive of providing resources to help bring the reputation of the business school closer to its already top ranked engineering programs. While the high pressure "publish-or-parish" tenure clock is real, I think my years working at IBM provided some perspective, and I enjoyed most of my time as an assistant professor.

Within the first few years on the job, I changed my research focus from my dissertation topic (theoretical supply chain contract work) to focus on two emerging areas for our field; ways to improve the environmental impact of supply chains and revenue management. The environmental work was very new to our field and, originally, not well received at many of our top journals, where there was often an attitude among reviewers and editors that profit maximization (or cost minimization) should be the only objective of high-quality business research. Thus, I focused my earlier work in this area to identify supply chain practices that were both profit increasing and environmentally superior. There was a small group of researchers (mostly European at the time) who formed a network intended to advance the research in this area, despite the current headwinds from the more mainstream members of the field. Years later, I was honored by this now much larger group by being chosen as the second recipient of the *Pioneer in Sustainable Supply Chains Award*, presented by the Closed-Loop Supply Chains Organization.

My second research focus was on revenue management, the scientific algorithms developed by the airline industry to modify the prices of tickets within the same class of airline seats based on the percent of total seats sold and the time remaining before take-off. Revenue management fascinated me because it basically flipped traditional supply chain management on its head. We normally set capacity or inventory levels in anticipation of some uncertain future demand while revenue management implies varying prices (and therefore demand) given a fixed capacity. This topic was also a niche area of the broader field at the time and Atlanta had many companies that offered products or services in this space. While I didn't make the connection at the time, the basic concepts of revenue management also apply to enrollments of graduate programs as many graduate programs use partial scholarships to help recruit students for each incoming class. If you consider the total number of seats in the classrooms available for the core classes of a graduate program as a fixed capacity, the differential pricing through scholarships is very similar to the problem the airlines face when trying to maximize revenue for a given capacity flight. The main difference is that graduate programs also often focus on additional criteria such as the quality of the incoming class and the metrics used for the national rankings.

On the teaching side, I started out, like most junior faculty in every discipline, taking over some sections of an existing core course, first at the undergraduate level and then the MBA core class. I enjoyed teaching and felt confident I knew the material well enough, but it bothered me that I was basically teaching the exact same material that was likely being taught in the equivalent courses nearly every MBA program in the country. The question that kept running through my mind was why a student should pursue an MBA at Georgia Tech versus some less expensive program at another university if the same material is taught at both. I've been a panelist on numerous new faculty advice sessions over the years and the advice my senior colleagues provide always boils down to the following: as an assistant professor you should spend most of your focus on developing your research pipeline and try to minimize the effort you put into teaching. What bothered me back then, and even more so now, is that the connection between a business school's research output and the revenue for the school is tenuous, at best. Federally funded research grants are not common in business schools the way they are in engineering, medicine, and the sciences. Thus, the bulk of the revenue for most U.S. business schools comes from tuition dollars and from non-degree programs taught through the school's executive education area. While faculty salaries are highly correlated with research production (at least for tenure track faculty), this research must be monetized somehow through teaching.

This early recognition that I needed to find ways to monetize (for my school) my research led me to develop a new MBA elective class based on my research stream on revenue management. When I

introduced my revenue management class for the first time in 2004, there were less than a handful of courses being taught on this topic across all the top 100 MBA programs. Because of this small number of offerings, there were no textbooks written on the topic so I had to create most of the material for my class from scratch (something that most senior faculty would recommend against). Going through the new course approval process for my course also introduced me to faculty politics for the first time, as both the marketing area within the business school and the industrial engineering school objected to my course on the grounds that the topic overlapped with their areas. It didn't matter that neither program was currently, nor had in the past, ever offered a similar course. The fact that new topics can basically be blocked simply based on areas protecting what they perceive to be their turf is one of the big inhibitors of innovation in college curriculum. Eventually, I was able to convince enough colleagues to support my new course and it was officially approved. By my second year of offering it, the course had become one of the top five most popular elective courses within our MBA curriculum. I attribute the popularity of the course to the fact that the content was unique and, since it was based a lot on my research, was thus not available from any other MBA program. I was also able to incorporate my environmental research into some executive education programs. Contrary to the more common advice that spending any extra effort on teaching will inversely affect your research productivity, my experience has been the opposite. The process of developing the teaching material on my research topics, along with the subsequent class discussions, has helped me generate new research ideas and better explain them in my research papers.

In total, I developed three new courses (along with several new executive education programs) during my time on the faculty at Georgia Tech. The second new course involved working with an industry partner in a project-focused class that included a one-week international trip (during spring break week) where we would visit a new country each year and have company visits with local and international companies based in that country. The motivation for this class came from an enthusiastic MBA student who helped me set up the first trip and from my own experience of the cultural shock that I experienced when my first trip outside of the country was to help start up the new IBM plant in China. I knew I would have greatly benefited from taking a course such as this one, which would have greatly reduced the stress of my China experience, where I was mostly left to figure things out on my own. Because of the high value for the students that I see in these experiences, I continued to teach these short-term study abroad classes even after I moved to the Darla Moore School at the University of South Carolina.

Faculty Director for the Technology and Management Program at Georgia Tech (2008-2011)

You may recall my intrigue over the Leaders for Manufacturing Program at MIT, an interdisciplinary program that combined engineering and business students at the graduate level. Around 2006, I learned from a development officer that we had recently hired from the University of Illinois that they had recently created something similar at the undergraduate level, called the Technology and Management Program. This program accepted some of the top performing rising junior engineering and business students at the university and put them in a cohort program for their junior and senior years. The program provided some specially designed business classes for the engineers and specially designed engineering classes for the business students before combining the students in several classes culminating in an industry sponsored practicum project at the end of their senior year. Upon hearing about this program, I immediately thought that something like it would be a great addition at Georgia Tech. It took two years of planning, several roadblocks due to questions about the source of funding, and eventually, a gift of $5M from an alum who had never previously given to the university to make the

program a reality. Before I left in 2011, we had received a second gift of $10M to expand the program to include Computer Science students and had a corporate advisory board that included twelve major corporations, each contributing $50K per year to help cover the program's operating expenses. One of the many lessons I took from this experience is that potential large capacity donors often want to see something truly innovative and transformative before making their investments. For something to be transformative, however, you need faculty members willing to put in the initial work and serve as champions for their projects before they are funded.

Second Faculty Job at the Darla Moore School of Business, UofSC (2011-Present)

While some of my colleagues questioned why I would move to a university with, at the time, what they perceived to have a lower research reputation, I was impressed by the commitment of the Management Science department to experiential project-based teaching and the school's more comprehensive offerings of international education opportunities for its students. I was originally recruited to help ramp up the doctoral program for the department, where the historical placements of their doctoral students had not been consistent, nor at peer or aspirant colleges. Changing this trajectory involved, to some extent, changing the overall culture of the research focused faculty. Using my traditional approach of leadership by example rather than mandate, I was able to slowly change the culture through closely mentoring, and many times actively co-authoring with, the doctoral students and demonstrating that our doctoral students could publish in the field's top five most respected journals, something that had become a requirement for obtaining academic placements at top business schools. In my efforts to improve the doctoral program, the overall research reputation of the department also reached new levels of respect among our peer groups. From my time joining the department up to the present time, I'm very proud of the fact that all our doctoral student graduates have obtained academic positions, many of which are at top 50 programs.

Other than my work with the doctoral students, I spent my time as a regular faculty member in the department by teaching at least one of the capstone projects in the department's supply chain center each semester, introducing my revenue management elective class to the MBA/PMBA programs, teaching a range of other classes (many on overload) as needed, developing the college's first certificate program in business analytics, refining and selling the new certificate to the U.S. Army in our executive education group, serving as the schools director of sustainability and many other leadership roles throughout the university. At the same time, I was asked to take on many external leadership roles from the three main professional societies of our field, including serving as president for several of our organizations. My volunteer work as a frequent journal reviewer, associate editor, senior editor, and department editor eventually resulted in one of the professional societies asking me to become the editor-in-chief of their society's flagship journal, Decision Sciences.

As with many challenges that I have taken on over my career, the *Decision Sciences Journal* had historically been considered a top five journal in our field but, for various reasons, had been on a downward trajectory over the last decade so the society's board was seeking a new editor to help change it. In our profession, the authoring and reviewing of journal articles are not directly compensated, so a journal editor must possess a lot of political capital to be able to convince the most qualified (and thus in-demand) researchers from around the world to invest their time and energy into contributing to improving the reputation of a journal. Thankfully, I feel like my years of volunteer work

for our professional societies had helped me gain enough respect from my peers that many of them signed up for the editorial positions I created by revamping the overall structure at the journal, resulting in shorter review cycles and higher quality reviews. Through their help we were able to change the trajectory of the journal's reputation. While it is difficult to quantify an improvement in the reputation of a journal over time, one common metric is the journal's impact factor. When I took on the role of EIC at the journal, the impact factor was 1.6 the year I took the position and steadily increased to 4.1 in 2021. Another indication of success came when the society named me their only new *Distinguished Fellow* in 2021.

Department Chair of the Management Science Department, DMSB (2017-2020)

When the long serving department chair moved into a new role, I was encouraged by many of my colleagues to submit my name for the role. I expect the strong support was because I frequently took on many extra service roles and teaching without complaint during my time as full professor, often so that the more junior faculty could be protected and have more time to develop their research portfolios. I was excited about the department chair role and felt a responsibility to take on the additional responsibility. I learned later that I received 100% support from department faculty. Transitioning to the new leadership position was not difficult as I had previously been helping my former department chair with many of the tasks involved in the daily running of the department. I also had the benefit of working in a growing department for the last six years, resulting in many new faculty hires joining us with a shared vision for the type of culture and results we wanted to foster. Describing the culture in a few words: unselfishness, professionalism, and a focus on maximizing the opportunities for our students come to mind. As with journals, it is also difficult to find external performance metrics for a department's improvement over time. Some external evidence is available, however, through the Gartner rankings of the best undergraduate and graduate level supply chain programs in North America (mostly student outcome focused) and the relative position of the research productivity provided by the U.T. Dallas database (research focused). For the Gartner rankings, the department's supply chain undergraduate major improved over the last six years from a ranking of 21st in 2018 to 3rd in 2022 (graduate level was 6th best). For the research productivity rankings, the department improved in a relative ranking against similar departments at other U.S. business schools (based on a count of publications over a three-year period in the top three pure Operations Management journals) from being in the top 40 around seven years ago to currently being ranked in the top 10.

Senior Associate Dean of Academics and Research, DMSB (2020-Present)

As with the department chair position, when the position of senior associate dean became available in April of 2020, I was lobbied by many of my colleagues (both inside and outside my department) to apply. At the time I, as I expect most of us, believed that we were in a short period of disruption due to the pandemic and that operations would likely return to normal by the coming fall semester. When I officially took over the role on July 1st of 2020, it was clear that the disruptions caused by COVID would persist for a much longer time. On top of the health and safety concerns, the university was under an abnormally high level of uncertainty over its financial budget, which had already resulted in some precautionary steps being taken such as mandated faculty/staff furloughs (over a certain salary level) and a significant the reduction in the amount of research funds available for summer support.

While I would not recommend taking a senior level position while most of your direct reports (i.e. the faculty) are absorbing significant pay cuts and are legitimately concerned about their own safety and

health, the circumstances forced the Dean's executive team to work more closely together than under more normal circumstances, which accelerated my understanding of the broader operations of the college, particularly on the staff side. Because the staff returned to the building faster than most of the faculty, I was able to personally observe (and better appreciate) the important role they play in the success of the college. Because of the crisis, everyone on the Dean's executive team tended to ignore the prior perceived restrictions of what was, or was not, in their job responsibilities such that we all contributed to the decision making of critical issues and were more widely involved than would have happened under more normal circumstances.

The increased uncertainty in the budget forecasts, and cost reduction mandates from central administration, quickly forced me to try to understand the byzantine university budgeting process so that I could minimize the negative impacts on the college. I worked closely with our financial and operations managers to model different financial scenarios so that we could proactively position ourselves to best withstand the coming financial challenges. This process resulted in a much more detailed look into the individual contributions, from a budget standpoint, of each program and department. This more detailed view, along with some data analysis, helped expose some rather large inconsistencies in how faculty members from different departments were being compensated for similar tasks and accomplishments. I felt that before we imposed any broader cuts impacting everyone roughly equally, we first needed to try to make the existing compensation system fairer and more transparent. This led to an ongoing effort to institute a common set of objective performance metrics across all faculty, centers, and graduate programs. While this effort has not been without some critiques from the most affected faculty members, we have a more transparent and fairer process for awarding incentives or investments than we have had in the past.

While is it easy during a time of crisis for manager to become overly focused on cost containment, I have tried to not let the urgent always push out the important. That is, I've tried to reserve enough time and energy to initiate longer term efforts that will improve the college's top line revenue. Such efforts often involve some initial investments, and I've worked closely with our private foundation board to share a common vision and articulate our strategies for these investments. We currently have several ongoing strategic efforts around making our graduate programs more attractive and profitable, increasing the surplus revenue generated yearly from our executive education programs, and dramatically increasing the yearly amount of philanthropic donations to the college. I am proud of the accomplishments we have achieved over the last two years and am optimistic that the school is positioned exceptionally well going forward.