

Adam J. Fleischhacker

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Current Position

2015 - Present **Associate Professor of Operations Management**
 University of Delaware - Alfred Lerner College of Business & Economics, Newark, DE
 Department of Business Administration
 Affiliated Faculty - Institute for Financial Services Analytics (2013 – Present)
 ♦ J.P. Morgan Chase Scholar (2014 – Present)

2009 - 2015 **Assistant Professor of Operations Management - Univ. of Delaware**

Education

2009 **Ph.D. in Supply Chain Management**
 Department of Supply Chain Management & Marketing Sciences
 Rutgers University – School of Business Newark and New Brunswick, Newark, NJ
Dissertation: *An Investigation of Clinical Trial Supply Chains*

1998 **Master of Business Administration**
 William E. Simon Graduate School of Business Administration
 University of Rochester, Rochester, NY

1996 **Bachelor of Science in Mechanical Engineering**
 State University of New York at Buffalo, Buffalo, NY

Research Interests:

Decision Analytics, Valuing Data, Valuing Information and Uncertainty Reduction, Inventory Management, Preposterior Analysis, Supply Chain Visualization

Scholarship:

Research Papers – Accepted for Publication

Fleischhacker, A., P. Fok. (2015) An Entropy Based Methodology for Valuation of Demand Uncertainty Reduction. *Decision Sciences*, **46**(6) pp. 1165-1198.

Chen, W., **A. Fleischhacker**, M. Katehakis. (2015) Dynamic Pricing and Channel Preference in a Dual Channel Environment. *Naval Research Logistics*, **62**(7) pp. 531-549.

Fleischhacker, A., Ninh, A., Y. Zhao. (2015) Inventory Positioning in Global Clinical Trial Supply Chains. *Production & Operations Management*, **24**(6) pp. 991-1011.

Fleischhacker, A., B. Chen, H. Kher, M. Mazal, B. Pfender. (2015) Capacity Planning in the Presence of Sequence Dependent Setups at Astra Zeneca Pharmaceuticals. *Interfaces*, **45**(3).

Fleischhacker, A., P. Fok. (2015) On the Relationship Between Entropy, Demand Uncertainty, and Expected Loss. *European Journal of Operational Research*, **245**(2) pp. 623-628.

Fleischhacker, A., Y. Zhao. (2013). Contract Development and Manufacturing Costs During Clinical Development of a New Drug. *Applied Clinical Trials Online*, August 5, 2013.¹

Fleischhacker, A., Y. Zhao. (2013). Balancing Learning and Economies of Scale for Adaptive Clinical Trials. *Operations Research for Health Care*, 2(3) pp. 42-51.

Fleischhacker, A., Y. Zhao. (2011). Planning for Demand Failure: A Dynamic Lot Size Model for Clinical Trial Supply Chains. *European Journal of Operational Research* 211(3) pp. 496 - 506.

Research Grants and Collaborative Research Contracts

“Analytics and Visualizations for Coordinating the Supply Chain,” Agilent Technologies, \$50,000, 2014-2015. (Principal Investigator)

“Formulation Capacity Modeling in the Presence of Sequence Dependent Setups,” AstraZeneca Pharmaceuticals, \$30,000, 2013. (Co-Principal Investigator w/ B. Chen and H. Kher)

“Using Metrics for Continual Improvement in Application Delivery,” JP Morgan Chase, \$120,000, 2012. (Principal Investigator w/ B. Chen and H. Kher)

“The Inventory-Time Tradeoff for Clinical Trial Supply Chains,” University of Delaware – General University Research Grant, \$6,000, 2014.

Research Papers – Under Review at Refereed Journals

Han, Q., A. Fleischhacker, P. Fok. First Passage Times in Clinical Trial Supply Chains with Stockouts. Under review at *IMA Journal of Management Mathematics*.

Research Papers – Projects in Process

Fleischhacker, A., P. Fok, M. Madiman. Expected Value of Sample Information Using Dirichlet Priors. Targeting publication in *Operations Research*.

Ji, X., Y-L. Tsai, A. Fleischhacker. Competitor Identification Using Tag and Transaction Data. Targeting publication in *MIS Quarterly*.

De La Rosa, L., A. Fleischhacker. Literature Survey of Data Visualization for Cybersecurity in the Financial Industry. *TBD*.

Other Papers

Fleischhacker, A. 2007. Bridging the Needs of Industry and Education Programs: Emerging Transportation Needs of New Jersey/New York Industries. *Part of Rutgers University proposal for Transportation Center of Excellence*.

Fleischhacker, A. 1999. Demand management best practices for the consumer goods and retail industry. *i2 Technologies White Paper*.

¹ Non-peer reviewed. Article accepted by editor.

Conference Presentations (By Year, By Topic)

- 2015 “Valuing Data: A Closed Form Solution for the Expected Value of Sample Information”
- ◆ INFORMS Annual Conference (*invited speaker*). Philadelphia, PA. November 1, 2015.
- 2014 “Sustainability: Trends Impacting Supply Chains”
- ◆ Delaware Bio, Pennsylvania Bio, and Bio New Jersey - Supply Chain Summit - September 9, 2014
- “Entropy Based Methodology for Valuation of Uncertainty Reduction”
- ◆ INFORMS Annual Conference (*invited speaker*). San Francisco, CA. November 10, 2014.
- “Modeling Uncertainty in Supply Chain Decision Making”
- ◆ University of Delaware’s Department of Mathematical Sciences Probability Seminar. Newark, DE. October 20, 2014
- “Entropy Based Valuation of Demand Uncertainty Reduction”
- ◆ Advances in Decision Analysis Conference. Georgetown University, Washington D.C.
- 2013 “Measuring and Managing Demand Uncertainty for Decision Making.”
- ◆ APICS (Brandywine) – Professional Development Meeting. Newark, DE.
- “Expected Value of Uncertainty Reduction: An Entropy Based Analysis of the Newsvendor Problem.”
- ◆ INFORMS Annual Conference. Minneapolis, MN.
- 2012 “Expected Value of Uncertainty Reduction: An Entropy Based Analysis of the Newsvendor Problem.”
- ◆ University of Delaware – Dept. of Business Admin. Newark, DE.
- “Inventory Optimization in Clinical Trial Supply Chains.”
- ◆ INFORMS Annual Conference (*invited speaker*). Phoenix, AZ.
- 2011 “Business Process Management for a Newsvendor.”
- ◆ INFORMS Annual Conference. Charlotte, NC.
- “Inventory Positioning in Global Clinical Trial Supply Chains.”
- ◆ Production and Operations Management Society Annual Meeting. Reno, NV.
- 2010 “Inventory Positioning in Global Clinical Trial Supply Chains.”
- ◆ INFORMS Annual Conference (*invited speaker*). Austin, TX.
- “Supply Chain Design When Demand and/or Supply Uncertainty is High.”
- ◆ National Association of Procurement Managers. Delaware Valley Chapter Meeting. Wilmington, DE.
- 2009 “Balancing Learning and Economies of Scale: The Case of Adaptive Clinical Trials.”
- ◆ INFORMS Annual Conference (*invited speaker*). San Diego, CA.
- 2008 “Planning for Demand Failure: A Dynamic Lot Size Model for Clinical Trial Supply Chains.”
- ◆ INFORMS Annual Conference (*invited speaker*). Washington, D.C.
 - ◆ DSI Annual Meeting. Baltimore, MD.
 - ◆ Clinical Trials Supply Management for Pharmaceuticals Conference(*invited speaker*). Philadelphia, PA.

- “Strategies for Clinical Trial Material Forecasting and Supply.”
- ◆ Clinical Trials Supply Management for Pharmaceuticals Conference (*panel moderator*). Philadelphia, PA.
- 2007 “Bidding for Consumer Dollars: Modeling a retailer’s price and variety decisions.”
- ◆ INFORMS Annual Conference. Seattle, WA.
- 2006 “Category Management and Internet Retailing.”
- ◆ INFORMS Annual Conference. Pittsburgh, PA.

Awards & Honors

- 2015 Outstanding Scholarship Award – Department of Business Administration
- University of Delaware *Excellence in Teaching* award nominee.
- 2014 Appointed as one of three J.P. Morgan Chase Scholars - Provides recognition for past and continued efforts in launching the Ph.D. program in Financial Services Analytics.
- University of Delaware *Excellence in Teaching* award nominee.
- Identified as one of 21 faculty members who can effectively communicate the Lerner College identity and points of differentiation.
- Awarded General University Research grant (\$6,000) for work on “The Inventory-Time Tradeoff Curve for Clinical Trial Supply Chains.”
- 2013 Secured collaboration agreement between University of Delaware and AstraZeneca. Topic: “Formulation Capacity Modeling.”
- Active contributor, as member of Ph.D. in Financial Services Analytics curriculum committee, in securing \$17 million of funding for program from J.P. Morgan Chase.
- 2012 Secured collaboration agreement between University of Delaware and JP Morgan Chase. Topic: “Using Metrics for Continuous Improvement in Application Delivery Processes”.
- 2010 Recruited and mentored 2nd place team at annual Rutgers MBA Supply Chain Case Competition.
- 2008 Awarded summer research grant from the Blanche & Irwin Lerner Center for Pharmaceutical Management Studies.
- 2007 Awarded summer research grant from Rutgers’ Research Resources Committee.
- 2007 Obtained highest achievable teaching effectiveness rating as instructor for Production & Operations Management
- 1999 Sole recipient of i2 Technologies’ Rising Star Award.
- 1998 William E. Simon Graduate School of Business merit scholarship recipient.
- 1992 State University of New York at Buffalo merit scholarship recipient (University Honors Program).

Professional Experience

- 2014 - 2015 **Principal Investigator**– Agilent Technologies, Wilmington, DE
Managing joint research project on using analytics and visualization for continuous improvement in supply chain performance. Also, using optimization to minimize stock picking times in a warehouse.
- 2013 **Co-Principal Investigator**– AstraZeneca Pharmaceuticals, Newark, DE
Co-managing joint research project on production scheduling with sequence-dependent changeovers.
- 2012 - 2013 **Principal Investigator**– JP Morgan Chase Newark, DE
Managing joint research project on using metrics for continuous improvement in application delivery processes.
- 2004 - 2005 **Founder & Consultant** - Category Captain Services Inc., Lake Hopatcong, NJ
Founded an analytical methods and business process consulting firm to create operational efficiencies through management of products at the category level.
 - ◆ *Highlight:* Modeled the use of data and analytics in the grocery supply chain to help a leading business intelligence software company secure a partnership with a leading marketing firm.
- 2001 - 2004 **Director of Front Office Solutions** - World Fuel Services Inc., Edison, NJ
Managed internal and outside software development teams across multiple sites/countries. Collaborated with management users in developing business processes to improve front office operations and streamline fuel supply chains.
 - ◆ *Highlight:* Delivered web-based front-office system launched in 17 international offices, integrated with Oracle ERP, and transacting over \$1B annually.
- 2000 - 2001 **Director of Product Management** – TransportEdge Inc., Parsippany, NJ
Promoted from within to craft new marketing strategy for financially challenged B2B Internet start-up.
 - ◆ *Highlight:* Championed TransportEdge’s metamorphosis from public B2B marketplace to Internet enabled trading software provider leading to company being sold to World Fuel Services Corporation.
- 1998 - 2000 **Product Manager, Demand Management** – i2 Technologies, Inc. Parsippany, NJ
Ensured i2’s software could support demand planning best practices from the consumer goods and retail industries.
 - ◆ *Highlight:* Redesigned i2’s Promotion Planning product leading to product’s first five customers.

Teaching Experience (by Course Title)

BUAD621 – Decision Analytics & Visualization

- ◆ *Spring 2016 (MBA)*

FSAN850 – Probabilistic Graphical Models Research Seminar

- ◆ *Spring 2016 (Ph.D.)*

FSAN830 – Business Process Innovation

- ◆ *Spring 2015 (Ph.D.): Co-taught with Harry Wang.*

BUAD267 – Business Analytics (Experimental Course) – Univ. of Delaware

- ◆ *Spring 2015 (Undergrad): Teaching Eval. 4.40 / 5.0*

BUAD820 - Data Analysis for Business – University of Delaware

- ◆ *Spring 2014 (MBA): Teaching Eval. 4.92 / 5.0*
- ◆ *Spring 2014 (MBA): Teaching Eval. 4.75 / 5.0*
- ◆ *Fall 2013 (MBA): Teaching Eval. 4.67 / 5.0*
- ◆ *Spring 2013 (MBA): Teaching Eval. 4.44 / 5.0*
- ◆ *Fall 2012 (MBA@Astra Zeneca): Teaching Eval. 4.52 / 5.0*
- ◆ *Fall 2012 (MBA): Teaching Eval. 4.59 / 5.0*
- ◆ *Spring 2011 (MBA): Teaching Eval. 4.47 / 5.0*
- ◆ *Fall 2010 (MBA@Astra Zeneca): Teaching Eval. 4.60 / 5.0*
- ◆ *Spring 2010 (MBA): Teaching Eval. 4.53 / 5.0*
- ◆ *Fall 2009 (MBA @Astra Zeneca): Teaching Eval. (less than 5 responses)*

Independent Study Courses – University of Delaware

- ◆ *Spring 2015 (MBA): Production Scheduling Optimization.*
- ◆ *Fall 2014 (MBA): Analytics using R.*
- ◆ *Winter 2012 (MBA): Applied Forecasting in Uncertain Environments.*
- ◆ *Fall 2010 (MBA): Business Process Design for Information Advantage*
- ◆ *Summer 2010 (MBA): Six Sigma*

BUAD831 - Operations Management – University of Delaware

- ◆ *Fall 2015 (MBA): Teaching Eval. 4.62 / 5.0*
- ◆ *Fall 2014 (MBA): Teaching Eval. 4.77 / 5.0*
- ◆ *Fall 2014 (MBA@Astra Zeneca): Teaching Eval. 4.16 / 5.0*
- ◆ *Spring 2011 (MBA@Astra Zeneca): Teaching Eval. 4.71 / 5.0*
- ◆ *Fall 2010 (MBA): Teaching Eval. 4.69 / 5.0*

BUAD448 - Decision Support Systems for Operations Management – University of Delaware

- ◆ *Spring 2013 (Undergrad): Teaching Eval. 4.78 / 5.0*
- ◆ *Spring 2012 (Undergrad): Teaching Eval. 4.67 / 5.0*
- ◆ *Spring 2012 (Undergrad): Teaching Eval. 4.59 / 5.0*
- ◆ *Spring 2010 (Undergrad): Teaching Eval. 4.21 / 5.0*

Production & Operations Management – Rutgers University

- ◆ *Spring 2009 (Undergrad): Teaching Eval. 4.65 / 5.0*
- ◆ *Fall 2008 (Undergrad): Teaching Eval. 4.72 / 5.0*
- ◆ *Spring 2007 (Undergrad): Teaching Eval. 5.0 / 5.0*
- ◆ *Fall 2006 (Undergrad): Teaching Eval. 4.52 / 5.0*

Other Professional Activities (by year)

2015

McNair Scholar - Advisor

Designed and shepherded new Business Analytics programs (undergrad minor, MBA minor, MBA major) to be launched in Fall 2016.

Appointed to *Production and Operations Management* Editorial Board.

Reviewer, *Production and Operations Management*, *European Journal of Operational Research*, *Management Science*, *Annals of Operations Research*, *Natural Sciences and Engineering Research Council of Canada*, and the *Journal of Organizational Computing and Electronic Commerce*.

2014

Member, Curriculum Committee for PH.D. in Financial Services Analytics.

Successfully achieved new academic program approval (since 2013).

Reviewer, *Production and Operations Management*.

Ph.D. Committee Member for Omar Ghonima. Dissertation: Advancing Steel and

- Concrete Bridge Technology to Improve Infrastructure Performance.
(Dept. of Civil Engineering – Univ. of Delaware)
Guest Lecturer, *Linear Programming Modeling Applications*, BUAD449 – University Of Delaware.
Interviewer, PH.D. in Financial Services Analytics. Successfully recruited 11 exceptional students for incoming class.
Recruited DuPont to participate in operations management projects for BUAD448.
- 2013
Reviewer, *European Journal of Operational Research*
Member, Search Committee for Assistant Professor of Operations Management.
Member, Manufacturing and Service Operations Management Society (*since 2008*).
Designed syllabus for new Ph.D. level course, *Business Process Innovation & Management*.
Designed syllabus for new undergraduate level course, *Business Analytics*.
Ph.D. Committee Member for Quihun Han. Dissertation: Analysis and Simulation of Exit Time Problems. (Dept. of Mathematical Sciences – Univ. of Delaware)
- 2012
Principal Investigator, JP Morgan Chase University of Delaware Collaboration.
Reviewer, *European Journal of Operational Research*
Member of Organization Committee (*de facto Chair*), Lerner College of Business & Economics (*since 2010*)
Recruit and mentor UD team for annual Rutgers MBA Supply Chain Case Competition (*since 2010*)
- 2011
Member of Faculty & Staff Recognition Committee, Dept. of Business Administration, Lerner College of Business & Economics. Successfully launched an electronic display for faculty and staff achievements.
Reviewer, *Production and Operations Management*
- 2010
Reviewer, *Production and Operations Management*
Reviewer, *European Journal of Operational Research*
Member of Organization Committee, Lerner College of Business & Economics
- 2009
Reviewer, *European Journal of Operational Research*
Consultant, *New York Correctional Facility (Prison Guard Scheduling)*
- 2008
Session Chair for DSI Annual Meeting.
Organized Supply Chain Management Ph.D. Student Research Forum.