

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 Faculty Fellow (2017 – present) ◆ J.P. Morgan Chase Scholar (2014 – 2016)
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 <i>Dissertation: An Investigation of Clinical Trial Supply Chains</i>
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:

Bayesian Business Analytics, Visual Interfaces to Probabilistic Programming, Valuing Data, Valuing Information and Uncertainty Reduction, Data Visualization, Supply Chain Visualization

Scholarship:

Research Papers – Published

Fleischhacker, A., O. Ghonima, T. Schumacher. Bayesian Survival Analysis for US Concrete Highway Bridge Decks. Forthcoming in *ASCE Journal of Infrastructure Systems*.

Ji, X., Y-L. Tsai, **A. Fleischhacker** (2019). A uniqueness-driven similarity measure for automated competitor identification. *International Journal of Applied Decision Sciences*, **12**(2) pp.179-204.

Ghonima, O., Schumacher, T., Unnikrishnan, A., and **Fleischhacker, A.** (2018). Advancing Bridge Technology, Task 10: Statistical Analysis and Modeling of US Concrete Highway Bridge Deck Performance - Internal Final Report. Portland State University Library. URL: https://pdxscholar.library.pdx.edu/cengin_fac/443.

Fleischhacker, A., O. Ghonima, T. Schumacher. Federal Highway Administration (FHWA). (2018). "Performance of Concrete Highway Bridge Decks using Nationwide Condition Data." FHWA-HIF-18-082. Washington, DC: FHWA.
<https://www.fhwa.dot.gov/bridge/concrete/hif18028.pdf>

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.

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

"Decision Analytics & Visualization Course Development," University of Delaware MBA Curriculum Grant, \$5,000, 2016.

"DNREC Process Improvement Learning Solutions - Analytics and Visualization at DNREC," Delaware Department of Natural Resources, \$142,134, 2016. (Co-Principal Investigator)

"Decision Analytics and Visualization," University of Delaware – MBA Curriculum Grant, \$5,000, 2016.

"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.

Manuscripts

Faraji, Z., A. Fleischhacker. Overstatement of Firm Diversification effect on Bankruptcy Risk Reduction. Accepted for publication in *Intl. Journal of Applied Decision Sciences*.

Fleischhacker, A., P. Fok, M. Madiman, N. Wu. The Expected Value of Demand Data: A Tractable EVSI Calculation Leveraging A Dirichlet Prior. Preparing reject and resubmit for *Management Science*.

Han, Q., A. Fleischhacker, P. Fok. First Passage Times in Clinical Trial Supply Chains with Stockouts.

Books

Fleischhacker, A. (2019). *Working Draft*. The Business Analyst's Guide to Business Analytics. Draft available here: <http://causact.updog.co>

Computer Packages

Fleischhacker, A. CAUSACT: R Package for accelerating Bayesian business analytics. See <https://github.com/flyaflya/causact/>.

Recent Conference Presentations (By Year, By Topic)

2019	“Bayesian Business Analytics for Supply Chain Insight”. POMS 2019 Annual Conference. Invited. Washington, DC.
2017	“A Uniqueness Driven Similarity Measure” (with Xin Ji) INFORMS Data Science Workshop. Accepted for Poster and Abbreviated Presentation.
	“Valuing Demand Sample Information Prior to Its Collection” INFORMS Annual Conference. Houston, TX.
2016	“Combining Data And Weakly Informative Priors To Make Better Decisions Faster” INFORMS Annual Conference (<i>invited speaker</i>). Nashville, TN. November 15, 2016.
2015	“Valuing Data: A Closed Form Solution for the Expected Value of Sample Information” <ul style="list-style-type: none"> ◆ INFORMS Annual Conference (<i>invited speaker</i>). Philadelphia, PA. November 1, 2015.
2014	“Sustainability: Trends Impacting Supply Chains” <ul style="list-style-type: none"> ◆ Delaware Bio, Pennsylvania Bio, and Bio New Jersey - Supply Chain Summit - September 9, 2014
	“Entropy Based Methodology for Valuation of Uncertainty Reduction” <ul style="list-style-type: none"> ◆ INFORMS Annual Conference (<i>invited speaker</i>). San Francisco, CA. November 10, 2014.
	“Modeling Uncertainty in Supply Chain Decision Making” <ul style="list-style-type: none"> ◆ University of Delaware’s Department of Mathematical Sciences Probability Seminar. Newark, DE. October 20, 2014
	“Entropy Based Valuation of Demand Uncertainty Reduction” <ul style="list-style-type: none"> ◆ Advances in Decision Analysis Conference. Georgetown University, Washington D.C.

Awards & Honors

2019 MBA Teaching Award Recipient – Honorable Mention (2nd most votes by MBA class)

2017 MBA Teaching Award Recipient – Honorable Mention (2nd most votes by MBA class)

2016 Selected to be a JPMC Faculty Fellow (2.5yr appointment).

 University of Delaware *MBA Teaching Award* nominee.

 University of Delaware *Excellence in Teaching* award nominee.

 University of Delaware *Excellence in Undergraduate Advising and Mentoring* nominee.

 Subject of article: “A networked business faculty for a changing business world” (see <http://lerner.udel.edu/associate-professor-adam-fleischhacker/>)

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

2016 **Co-Principal Investigator**– Department of Natural Resources, Dover, DE
Working with department employees on how to use data analytics and visualization for monitoring of air and water quality in the state of Delaware.

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)

BUAD345/621 (*listed as BUAD867*) – Decision Analytics & Visualization

- ◆ *Spring 2019 (Analytics Certificate @ JPMorgan): Teaching Eval. 4.98 / 5.0*
- ◆ *Spring 2019 (Undergrad): Teaching Eval. 4.63 / 5.0*
- ◆ *Spring 2016 (MBA): Teaching Eval. 4.64 / 5.0*

FSAN850 – Probabilistic Graphical Models Research Seminar

- ◆ *Spring 2016 (Ph.D.): Teaching Eval. n/a*

FSAN830 – Business Process Innovation

- ◆ *Spring 2017 (Ph.D.): Teaching Eval. n/a*
- ◆ *Spring 2017 (Ph.D.): Teaching Eval. 4.97 / 5.0*
- ◆ *Spring 2015 (Ph.D.): Co-taught with Harry Wang. Teaching Eval. n/a*

BUAD306 – Operations Management (Honors)

- ◆ *Fall 2017 (Undergrad): Teaching Eval. 4.2 / 5.0*

BUAD267 – Business Analytics (Experimental Course)

- ◆ *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 2017 (MBA): Business Analytics Capstone. Teaching Eval. 5.0 / 5.0*
- ◆ *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 2018 (MBA): Teaching Eval. 4.69 / 5.0*
- ◆ *Fall 2017 (MBA): Teaching Eval. 4.73 / 5.0*
- ◆ *Fall 2016 (MBA): Teaching Eval. 4.68 / 5.0*
- ◆ *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

- ◆ *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*

Other Recent Professional Activities (by year)

2019

Helped propose and shepherd the new Business Analytics undergraduate major to be launched in Fall 2020.

Member of *Production and Operations Management* Editorial Board.

Reviewer, *Production and Operations Management*, *European Journal of Operational Research*.

	Ph.D. advisor in Financial Services Analytics for Negin Faraji, Chuan Cai, and Rose Nguyen.
2018	<p>Primary advisor for first Ph.D. graduate, Xin Ji, of Financial Services Analytics program.</p> <p>Contributions to <code>greta</code> package. Contributions made to R <code>BOOKDOWN</code> package to fix bugs.</p>
	<p>Member of <i>Production and Operations Management</i> Editorial Board.</p> <p>Reviewer, <i>Production and Operations Management</i>, <i>European Journal of Operational Research</i>.</p>
2017	<p>Member of <i>Production and Operations Management</i> Editorial Board.</p> <p>Reviewer, <i>Production and Operations Management</i>, <i>European Journal of Operational Research</i>.</p>
2016	<p>Senior Thesis Advisor – Alexander Daniels. McNair Scholar.</p> <p>Master's Thesis Committee Member – Madelyn Houser “Predicting credit portfolio default risk using the Vasicek asymptotic single risk factor (ASRF) model”</p> <p>Launched new Business Analytics courses and programs (undergrad minor), MBA concentration, MBA major) to be launched in Fall 2016.</p> <p>Member of <i>Production and Operations Management</i> Editorial Board.</p> <p>Reviewer, <i>Production and Operations Management</i>, <i>European Journal of Operational Research</i>.</p> <p>Gained approval from the Faculty Senate for new Business Analytics minor (undergrad) and new MBA curriculum (major and concentration) in Business Analytics.</p> <p>Assisted in organizing 4th Annual IFSA Conference - 'Disruptive Innovations in Financial Services'</p>
2015	<p>McNair Scholar - Advisor</p> <p>Designed and shepherded new Business Analytics programs (undergrad minor, MBA minor, MBA major) to be launched in Fall 2016.</p> <p>Appointed to <i>Production and Operations Management</i> Editorial Board.</p> <p>Reviewer, <i>Production and Operations Management</i>, <i>European Journal of Operational Research</i>, <i>Management Science</i>, <i>Annals of Operations Research</i>, <i>Natural Sciences and Engineering Research Council of Canada</i>, and the <i>Journal of Organizational Computing and Electronic Commerce</i>.</p>
2014	<p>Member, Curriculum Committee for PH.D. in Financial Services Analytics. Successfully achieved new academic program approval (since 2013).</p> <p>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)</p>