BLAKELEY B. MCSHANE

Contact Information:

Kellogg School of Management
Northwestern University
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Academic Employment:

Kellogg School of Management, Northwestern University   2010 – Present
Assistant Professor   2011 – Present
Assistant Professor and *Donald P. Jacobs Scholar*   2010 – 2011

Education:

The Wharton School, University of Pennsylvania   May 2010
Ph.D. in Statistics
Thesis: Machine Learning Methods With Time Series Dependence
Advisor & Committee: Abraham Wyner, Eric Bradlow, Shane Jensen and Abba Krieger

The Wharton School, University of Pennsylvania   May 2010
M.A. in Statistics
Thesis: Hierarchical Bayesian Modeling of Hitting Performance in Baseball
Co-Advisors: Shane Jensen and Abraham Wyner

Oriel College, University of Oxford   October 2004 – June 2005
Studies in Philosophy

The College of Arts and Sciences, University of Pennsylvania   May 2003
M.A. in Mathematics
Thesis: Mathematical Methods in Pricing Rainbow Options
Advisor: Jonathan Block

The College of Arts and Sciences, University of Pennsylvania   May 2003
B.A. in Mathematics

The Wharton School, University of Pennsylvania   May 2003
B.S. in Economics, Concentrations in Finance and Statistics

Publications:

Kiser, R., Asher, M., and McShane, B.B. (2008), "Let's Not Make a Deal: An Empirical Study of Decision Making in Unsuccessful Settlement Negotiations." *Journal of Empirical Legal Studies*, Vol. 5, No. 3, 551-591.
  Reprinted in:
  Foundations of Dispute Resolution (2012). Ed. Carrie Menkel-Meadow. Aldershot, UK: Ashgate.

McShane, B.B., Adrian, M., Bradlow, E.T., and Fader, P.S. (2008), "Count Models Based on Weibull Interarrival Times." *Journal of Business and Economic Statistics*, Vol. 26, No. 3, 369-378.

Jensen, S.T., McShane, B.B., and Wyner, A.J. (2009), "Hierarchical Bayesian Modeling of Hitting Performance in Baseball." *Bayesian Analysis*, Vol. 4, No. 4, 631-652. (with three discussions)

Jensen, S.T., McShane, B.B., and Wyner, A.J. (2009), "Rejoinder: Hierarchical Bayesian Modeling of Hitting Performance in Baseball." *Bayesian Analysis*, Vol. 4, No. 4, 669-674.

McShane, B.B. (2009), "Exploring a New Method for Classification with Local Time Dependence." *Transactions of the Deming Conference on Applied Statistics*.

Piette, J., Braunstein A., McShane, B.B., and Jensen, S.T. (2010), "A Point-Mass Mixture Random Effects Model for Pitching Metrics." *Journal of Quantitative Analysis in Sports*, Vol. 6: Iss. 3, Article 8.

McShane, B.B., Galante, R.J., Jensen, S.T., Naidoo, N, Pack, A.I., and Wyner, A.J. (2010), "Characterization of the Bout Durations of Sleep and Wakefulness." *Journal of Neuroscience Methods*, Vol. 193, No. 2, 321-333.

McShane, B.B. and Wyner, A.J. (2011), "A Statistical Analysis of Multiple Temperature Proxies: Are Reconstructions of Surface Temperatures Over the Last 1000 Years Reliable?" *Annals of Applied Statistics*, Vol. 5, No. 1, 5-44. (with thirteen discussions)

McShane, B.B. and Wyner, A.J. (2011), "Rejoinder: A Statistical Analysis of Multiple Temperature Proxies: Are Reconstructions of Surface Temperatures Over the Last 1000 Years Reliable?" *Annals of Applied Statistics*, Vol. 5, No. 1, 99-123.

McShane, B.B., Braunstein A., Piette, J., and Jensen, S.T. (2011), "A Bayesian Variable Selection Approach to Major League Baseball Hitting Metrics." *Journal of Quantitative Analysis in Sports*, Vol. 7: Iss. 4, Article 2.

McShane, B.B., Galante, R.J., Biber, M.P., Jensen, S.T., Wyner, A.J., and Pack, A.I. (2012), "Assessing REM Sleep in Mice Using Video Data." *Sleep*, Vol. 35, Iss. 3, 433-442.

Naidoo, N., Ferber M., Galante, R.J., McShane, B.B., Hu, J.H., Zimmerman, J., Maislin, G., Cater, J., Wyner, A. J., Worley, P., and Pack, A.I. (2012), "Role of Homer Proteins in the Maintenance of Sleep-Wake States." *PLoS ONE*, 7(4): e35174. doi:10.1371/journal.pone.0035174.

Gal, D.G. and McShane, B.B. (2012), "Can Fighting Small Battles Help Win the War? Evidence from Consumer Debt Management." *Journal of Marketing Research*, Vol. 49, 487-501.

McShane, B.B., Watson, O.P., Baker, T., and Griffith, S.J. (2012), "Predicting Securities Fraud Settlements and Amounts: A Hierarchical Bayesian Model of Federal Securities Class Action Lawsuits." *Journal of Empirical Legal Studies*, Vol. 9, Iss. 3, 482-510.

McShane, B.B., Bradlow, E.T., and Berger, J. (2012), "Visual Influence and Social Groups." *Journal of Marketing Research*, Vol. 49, 854-871.

McShane, B.B., Jensen, S.T., Wyner, A.J., and Pack, A.I. (forthcoming), "Statistical Learning with Time Series Dependence: An Application to Scoring Sleep in Mice." *Journal of the American Statistical Association*. (forthcoming with discussion)

McShane, B.B., Jensen, S.T., Wyner, A.J., and Pack, A.I. (forthcoming), "Rejoinder: Statistical Learning with Time Series Dependence: An Application to Scoring Sleep in Mice." *Journal of the American Statistical Association*.

Papers Presented:
"Statistical Learning with Time Series Dependence." Presented August 2013 at the Joint Statistical Meetings, Montreal, QC, Canada.

"The Power of Weak Studies: Why the Synthesis of a Research Paper Matters." Presented June 2013 at the University of Sussex, School of Business, Management, and Economics, Brighton, UK.

"Blinding Us to the Obvious? The Effect of Statistical Training on Statistical Intuition." Presented April 2013 at the Goizueta Business School, Emory University, Atlanta, GA.

"The Power of Weak Studies: Why the Synthesis of a Research Paper Matters." Presented April 2013 at the Ross School of Business, University of Michigan, Ann Arbor, MI.

"The Power of Weak Studies: Why the Synthesis of a Research Paper Matters." Presented March 2013 at the Rady School of Management, University of California, San Diego.

"Overcoming Questionable Research Practices Via Mini Meta-Analysis." Presented November 2012 at the Sasin Graduate Institute of Business Administration, Chulalongkorn University, Bangkok, Thailand.

"Can Fighting Small Battles Help Win the War? Evidence from Consumer Debt Management." Presented October 2012 at the Association for Consumer Research Conference 2012, Vancouver, BC, Canada.

"Sponsored Search and Consumer Behavior." Presented August 2012 at the Statistical and Applied Mathematical Sciences Institute Workshop on Computational Advertising, Research Triangle Park, NC.

"Bayesball: Modeling of Homeruns Using Hidden Markov Models." Presented August 2012 at the Joint Statistical Meetings, San Diego, CA.

"Can Fighting Small Battles Help Win the War? Evidence from Consumer Debt Management." Presented June 2012 at the INFORMS Marketing Science Conference 2012, Boston, MA.

"Too Good to be True: The Limits of Creative Solutions to Data Problems." Presented March 2012 with Ulf Bockenholt at the Kellogg School of Management, Northwestern University, Evanston, IL.

"The Reliability of Millennial Multi-proxy Temperature Reconstructions." Presented October 2011 at the Wharton School, University of Pennsylvania, Philadelphia, PA.

"The Reliability of Millennial Multi-proxy Temperature Reconstructions." Presented October 2011 at the Workshop on Mathematics in the Geosciences (National Science Foundation), Northwestern University, Evanston, IL.

"Hierarchical Bayesian Modeling of Hitting Performance in Baseball." Presented August 2011 with Shane Jensen at the Joint Statistical Meetings, Miami Beach, FL.

"The Reliability of Millennial Multi-proxy Temperature Reconstructions." Presented July 2011 at the International Environmetrics Society's 2011 Meeting, La Crosse, WI.

"The Reliability of Millennial Multi-proxy Temperature Reconstructions." Presented June 2011 at the Interface Symposium 2011: Statistical, Machine Learning, and Visualization Algorithms, Raleigh, NC.

"Are Reconstructions of Surface Temperatures Over the Last 1000 Years Reliable?" Presented May 2011 with Abraham Wyner at the Midwest Biopharmaceutical Statistics Workshop, Muncie, IN.

"Classification/Choice Modeling with Time Series." Presented November 2010 at the INFORMS 2010 Annual Meeting, Austin, TX.

"A Statistical Analysis of Multiple Temperature Proxies: Are Reconstructions of Surface Temperatures Over the Last 1000 Years Reliable?" Presented March 2010 with Abraham Wyner at The Wharton School, University of Pennsylvania, Department of Statistics, Philadelphia, PA.

"Multivariate Visual Diffusion for Social Groups." Presented February 2010 at the Graduate School of Business, Stanford University, Palo Alto, CA.

 "Statistical Learning Methods for Modeling Sleep in Mice." Presented December 2009 at the Deming Conference on Applied Statistics, Atlantic City, NJ.

"Multivariate Visual Diffusion for Social Groups." Presented November 2009 at the Carey Business School, Johns Hopkins University, Baltimore, MD.

"Multivariate Visual Diffusion for Social Groups." Presented October 2009 at the Leonard N. Stern School of Business, New York University, New York, NY.

"Multivariate Visual Diffusion for Social Groups." Presented October 2009 at the Kellogg School of Management, Northwestern University, Evanston, IL.

"Multivariate Visual Diffusion for Social Groups." Presented October 2009 at the Tuck School of Business, Dartmouth College, Hanover, NH.

"Evaluating Baseball Metrics Using a Point-Mass Mixture Random Effects Model." Presented September 2009 at the New England Symposium on Statistics in Sports, Boston, MA.

"Multivariate Visual Diffusion for Social Groups." Presented September 2009 at the School of Business Administration, University of Miami, Miami, FL.

"Multivariate Visual Diffusion for Social Groups." Presented September 2009 at the Olin Business School, Washington University in St. Louis, St. Louis, MO.

"Multivariate Visual Diffusion for Social Groups." Presented September 2009 at The Wharton School, University of Pennsylvania, Department of Marketing, Philadelphia, PA.

"Social Identity and Multivariate Visual Diffusion." Presented June 2009 at the INFORMS Marketing Science Conference 2009, Ann Arbor, MI.

"New Metrics for Summarizing Sleep Bout Durations in Mice." Presented May 2009 at the Center for Sleep and Respiratory Neurobiology Research Retreat, Philadelphia, PA.

"Machine Learning Methods With Time Dependent Data." Presented May 2009 at The Wharton School, University of Pennsylvania, Department of Statistics, Philadelphia, PA.

"Are Reconstructions of Surface Temperatures Over the Last 1000 Years Reliable?" Presented February 2009 at the Information Theory and Applications Workshop, San Diego, CA.

"A Multivariate Diffusion Model for Social Groups: How Social Identity Influences When and What People Buy." Presented October 2008 at the INFORMS 2008 Annual Meeting, Washington, D.C.

"Statistical Prediction of Sleep in Mice Based on Video Data." Presented May 2008 at the Center for Sleep and Respiratory Neurobiology Research Retreat, Philadelphia, PA.

Teaching:
Marketing 450: Research Methods in Marketing   Fall 2011 – Present
MBA course designed to provide a fundamental understanding of marketing research methods employed by well-managed firms. The course focuses on problem formulation, research design, questionnaire construction, sampling, data collection and data analysis (e.g., regression, cross-tabulation, cluster analysis, factor analysis, perceptual maps, and conjoint analysis) to yield the most valuable information.

Marketing 552: Bayesian Methods and Computation   Spring 2013 – Present
Ph.D. course develop sophisticated tools for probability modeling and data analysis from the Bayesian perspective. Key topics covered in the course include hierarchical models, mixture models and Monte Carlo simulation techniques.

Statistics 541: Advanced Statistical Methods   Spring 2007
Teaching Assistant (to Professor Andreas Buja)
First-year doctoral course designed to teach computational methods including the bootstrap, bagging, cross-validation, CART, non-parametric function estimation, and other techniques.

Statistics 111: Introductory Statistics   Fall 2006, Spring 2006
Teaching Assistant (to Professors Shane Jensen and Abraham Wyner)
Undergraduate course covering probability, confidence intervals, hypothesis tests, and linear regression.

Statistics 611/612: MBA Mathematics Review   Summer 2006
Teaching Assistant (to Professor Abraham Wyner)
Review course for incoming MBA students covering algebra, differential calculus, and integral calculus.

Professional Employment:
Invite Media, Philadelphia, PA   Fall 2007 – Fall 2008
Vice President of Statistics
• Built an ad-serving engine to perform targeted banner advertising using click-through and social network data.
• Created a yield manager which prices CPC and CPA campaigns in CPM terms thereby enabling the managers of these campaigns to bid on ad exchanges.
• Advised the executive team on issues at the intersection of strategy and technology.

D. E. Shaw & Company, New York, NY   Summer 2007
Quantitative Analyst
• Developed a suite of software tools to perform Markov Chain Monte Carlo methods for posterior sampling and integration, Bayesian regression, principal components analysis, and various re-sampling techniques.
• Began developing a risk model for the firm's convertible bond strategy to assess the risk approximate price of bonds in the portfolio which traded infrequently using data from frequently-traded bonds and corresponding equity prices.

 George Weiss Associates, New York, NY   Summer 2003 – Fall 2004
Quantitative Strategies Analyst   Summer 2002
• Designed and implemented a quantitative model which traded equities in the financial sector profitably (Sharpe Ratio of 1.97) and held responsibility for managing the daily trade list.
• Invented a methodology to account for geopolitical risk in the fund's portfolios, both as a tool to assess when such factors affected our portfolios and to hedge out such risk.
• Designed historical backtests to assess the profitability of various rule-based trading criteria.
• Created a program to be run daily to alert traders of aberrant stock movements over the preceding weeks.
• Conducted a review of various models already in use by the firm.

McKinsey & Company, New York, NY   Summer 2001
Business Analyst
• Staffed in the pharmaceutical industry on a project team responsible for the strategic positioning of a new drug.
• Assisted in creation of a metrics dashboard, senior management's primary tool for measuring the drug's success.
• Conducted a comprehensive review of the client's top competition and briefed senior McKinsey personnel in preparation for meetings with the client's management team.

Grants:
NIH/SBIR Training Grant for Sleep Research, July 2006 – July 2010.
Baker Retailing Initiative Research Grant, 2009.

Honors:
W. Edwards Deming Graduate Student Scholar, 2009
Thouron Award (full academic scholarship to study in the United Kingdom)
Phi Beta Kappa
Benjamin Franklin Scholar
Joseph Wharton Scholar
Dean's List 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002-2003
William D. Gordon Award (given to graduating Wharton undergraduate with highest GPA)
B.S. in Economics, *Summa Cum Laude*
B.A. in Mathematics, *Summa Cum Laude* and with Distinction
Beta Gamma Sigma

Golden Key Society

Affiliations:
American Marketing Association
Institute for Mathematical Statistics
American Statistical Association

Reviewer:
Journal of the American Statistical Association
American Statistician
Association for Consumer Research
Management Science
Journal of Marketing Research
Marketing Science
PLoS ONE
Psychometrika
Journal of Quantitative Analysis in Sports