

Margaret P. Pierson

Ph.D. Candidate

Columbia Business School

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Education

2005- **Graduate School of Business, Columbia University, New York**

Present PhD Candidate in Decisions, Risk and Operations

Expected: May 2010

Dissertation: Price Competition and the Impact of Service Attributes: structural estimation and analytical characterizations of equilibrium behavior

Director: Awi Federgruen

Coursework:

Methodological – LP, DP, Optimal Control, Cooperative & Non-cooperative Game Theory, Contract Theory, Econometrics, Stochastic Processes, Queueing Theory

Special Seminars – Advanced Topics in Non-Cooperative Games, Competition & Coordination in Supply Chains, Stochastic Inventory Control Seminars

MBA/EMBA Teaching Assistant: The Business of Sustainability, Managerial Statistics, Operations Management, Retail Strategy and Operations

2004- **School of Engineering and Applied Sciences, Columbia University, New York**

2005 M.S. Operations Research

2001- **School of Engineering and Applied Sciences, Columbia University, New York**

2004 B.S. Operations Research

Research Interests

Future Work: I select research work based on interesting problems in industry, augmenting my understanding of solution techniques as necessary. I am committed to incorporating techniques from other fields, such as economics and marketing. My process is one in which I identify areas of interest and then look for contacts in industry who can point me to relevant contemporary issues. Current areas of interest include developing economies, empirical IO, and sustainability.

Publications

Papers:

- *Does it pay to reduce your customers' wait? An empirical industrial organization study of the fast-food drive-thru industry based on structural estimation methods.* (With G. Allon and A. Federgruen), Submitted

- *Price Competition Under Multinomial Logit Demand Function with Random Coefficients* (With G. Allon and A. Federgruen), In Preparation
- *Price Competition and the Impact of Mergers and Acquisitions* (With A. Federgruen), In Preparation
- *Inventory Management with Cash Constraints* (With A. Federgruen and G. van Ryzin), In Preparation

Cases:

- *Frogtex: Mobile Technology for Micro-Retailing* (With G. van Ryzin), Piloting in Operations Strategy Course (Spring 2010)

Conference Presentations

“Does it pay to improve your customers’ wait? An empirical IO study of the fast-food drive-thru industry based on structural estimation methods”, INFORMS Annual Meeting, invited talk, San Diego, October 2009

“Does it pay to reduce your customers' wait?” MSOM 2009 Annual Meeting, MIT Sloan, June 2009.

“The Case of Frogtex: Technology Enabled Operational Improvement in Micro-Retailing”, Technology and Innovation in Operations, London Business School, June 2009.

“Competition in the Fast Food Drive Through Industry: An empirical industrial organization study based on structural estimation methods”, INFORMS, Washington D.C., November 2008

Industry Project Experience

- Aug 08- Present **Frogtex, New York, NY**
Research Associate on Social Entrepreneurship Venture
- Developing low cost supply chain management system for micro-retailers utilizing existing cell phone infrastructure
 - Traveled to Colombia with company founder to interview micro-retailers, survey existing supply chain & scope product
 - Advising client team on supply chain best practices in the retail industry
 - Designing solutions in assortment optimization, procurement management, pricing optimization, supply chain integration
 - Case study in preparation
- Spring 2007 **Longitude Books, New York, NY**
Academic Consulting Team Leader
- Managed 3 person team and client relationship
 - Developed inventory management system & assessed benefit of seasonal demand forecasts

- Demonstrated ROI with hindsight analysis

Relevant Professional Experience

- Summer 2006 **Manugistics**, Revenue Management Group, **Atlanta, GA**
Operations Research Consultant
- Junior associate on 4 person team: conducted revenue opportunity assessment for car rental company (\$1.7B '06 rev.)
 - Took lead in developing linear optimization model for car allocation in the rental car industry
 - Data analysis support for senior consultants evaluating current pricing and forecasting methodologies at client

References

Gad Allon, Associate Professor of Managerial Economics & Decision Sciences,
Kellogg School of Management

Awi Federgruen, Charles E. Exley Professor in Management, Columbia Business
School

Garrett van Ryzin, Paul M. Montrone Professor in Private Enterprise, Columbia
Business School

Marcelo Olivares, Assistant Professor, Columbia Business School