

**Elizabeth Durango-Cohen, Ph.D.**  
**Assistant Professor**  
**Business**  
**Stuart School of Business**  
[edurangocohen@iit.edu](mailto:edurangocohen@iit.edu)

**Professional Interests**

**Research Interests**

Supply Chain Management; Incentives, Contracts and Information in Supply Chains; Inventory and Production Planning; Capacity / Pricing Issues (Marketing/Operations Interface of Supply Chains)

**Academic Background**

Ph.D. University of California, Berkeley, California, Industrial Engineering and Operations, 2002  
M.S. University of California, Berkeley, California, Industrial Engineering and Operations Research, 1995  
B.S. Sonoma State University, Rohnert Park, California, Applied Mathematics & Computer Science, 1994

**Certifications**

Haas School of Business - Management of Technology, 1996

**Memberships**

INFORMS - Manufacturing and Service Operations Management Society (MSOM)  
Institute for Operations Research and the Management Sciences (INFORMS)  
Junior Faculty INFORMS Group (JFIG)  
Women in OR/MS Forum (WORMS)

**Computer Skills**

Programming: Perl, Visual Basic, C, SQL, SIMAN, S-Plus, Mathematica, AMPL  
Operating Systems: UNIX, Macintosh, Windows and MS-DOS  
Applications: LaTeX/PCTeX, Word, Powerpoint, Excel and Access.

**Work Experience**

**Academic Experience**

Assistant Professor of Operations Management, Illinois Institute of Technology, Stuart School of Business (June, 2005 - Present).  
Assistant Professor of Operations and Manufacturing Management (OMM), Washington University, John M. Olin School of Business (September, 2002 - June, 2004).  
Graduate Student Instructor (GSI), University of California, Industrial Engineering and Operations Research Department (August, 1998 - January, 2000).  
Graduate Student Instructor (GSI), University of California, Walter A. Haas School of Business (January, 1998 - January, 1999).  
Graduate Student Instructor (GSI), University of California, Statistics Department (August, 1994 - January, 1994).

**Consulting**

2008: JSTOR and UC Berkeley, Optimizing Print Backups of Archival Journals

**Paid Service**

2008: Comarch Initiative

**Courses Taught**

Financial Modeling (Specialized Masters), IN Strategic Competit-Next Economy (MBA), Operating System Design (MBA), Operations Management, Special Topics Seminar (Specialized Masters), Spreadsheet Modeling (MBA)

**Teaching-Other**

**Course (Existing) - Compensated Redesign.**

2008 - Course (Existing) - Compensated Redesign. BUS 305 - Operations Management: This course introduces you to concepts and techniques related to the design, planning, control and improvement of service and manufacturing operations. The course attempts to make you conversant in the language of operations management, provide you with quantitative and qualitative tools to analyze basic operations issues, and allow you to see the role of operations management in the overall strategy of the firm. We will cover topics in process analysis, quality program implementation and management, inventory and supply chain management and operations strategy. In each module of the course, we will introduce basic tools for analyzing operations problems, methods of managing that aspect of operations, as well as a strategic view, typically using cases. Through this approach we hope to have you learn about operations management tools and about the context in which they operate.

**Course (New) - Creation/Delivery: Conventional.**

2009 - Course (New) - Creation/Delivery: Conventional. MBA 562 - Spreadsheet Modeling: This course was updated to be a three-semester unit course in the Spring of 2010. This course has the following objectives: (a) to introduce students to the science of quantitative decision making; (b) to enhance and reinforce students' analytical skills and their ability to intelligently use information; (c) to teach the art and science of spreadsheet modeling; (d) to expose students to different approaches, support tools, and analytical methods for decision making; and (e) to improve students' critical thinking skills. These objectives will be facilitated through the following key tools taught in this course, which are:

- 1) Spreadsheet modeling;
- 2) Decision analysis;
- 3) Simulation for risk-analysis and modeling uncertainty; and
- 4) Optimization tools and constrained resource allocation.

2008 - Course (New) - Creation/Delivery: Conventional. MSC 596 - Quantitative Models in Operations Management: This course is a special topics seminar that focuses on quantitative methods, techniques and theoretical models used in supply chain management research. We will discuss not only classical inventory management and supply chain management models, but also recent contributions to the field. In particular, we will examine the influence of micro-economic theory, particularly game theory, on analytical OM research. Topics covered will include incentives, information sharing, competition and coordination in inventory and supply chain management. The course material will revolve around classic and recent publications in well-known journals.

2008 - Course (New) - Creation/Delivery: Conventional. MBA 545 - Operating System Design: The foundation of this course is a system of manufacturing laws collectively known as 'Factory Physics.' These laws relate various measures of plant performance, such as throughput, cycle time, work-in-progress, customer service, variability, and quality, in a consistent manner and provide a framework for evaluating classical operations management techniques as well as evolving new strategies. The course will attempt to make students comfortable with both the managerial issues and the operational and technical foundations associated with these systems.

Classroom experience will be varied, from cases, lectures/discussions, and computer simulation exercises. This course is an extension of the core Operations Management course. The goal and objectives of the course are:

1. To develop an appreciation for the problem-oriented approach to process/materials/service management. (A friend once said: 'managers would rather live with problems they could not solve rather than accept solutions they did not understand.' This course aims to expose you both to the problems and to their solutions.)
2. To examine the state of the art in applications. This is not a theoretical course. Rather, it uses concepts and approaches that are helpful in solving real problems. In addition, the exercises and cases are intended to demonstrate the value of personal computers in dealing with these problems.
3. To create an experiential learning process where you 'learn by doing.'

**Student Assign-Supervised Research (GRAD).**

2008 - Student Assign-Supervised Research (GRAD). 1 student, Supervised research activities for Masters student from Spain.

**Intellectual Contributions.**

**Grid**

Category	DBS	CTP	LPS	Total
Articles in Refereed Journals	1			1
Publications in Refereed Conference Proceedings	4			4
Presentations of Refereed Papers	3			3
Presentations of Non-Refereed Papers	12			12
Grants - Funded (both refereed and non-refereed)	2			2
Working Papers (all)	7			7
<b>Totals</b>	<b>29</b>			<b>29</b>

## Refereed Articles

Durango-Cohen, E. & Yano, C. (in press, 2010). Optimizing Customer Forecasts for Forecast-Commitment Contracts. Production and Operations Management.  
Durango-Cohen, E. & Yano, C. (2006). Supplier Commitment and Production Decisions Under a Forecast-Commitment Contract. Management Science.

## Refereed Proceedings

### Full Paper

Wong, W. K., Durango-Cohen, E., & Chmielewski, D. J. (in press, 2010). Inventory Control and LQG: Connections and Extensions. 2010 American Control Conference.

### Abstract Only

Durango-Cohen, E. & Yano, C. (2010). Outsourcing in Place: Selling the Retailer's Store-Brand Factory. Manufacturing Service and Operations Management.  
Durango-Cohen, E. & Yano, C. (2009). Forecast- Commitment Contracts with Strategic Customers. Manufacturing Service and Operations Management.  
Durango-Cohen, E. & Durango-Cohen, P. (in press, 2009). Optimizing Direct-marketing Strategies for Public Broadcasting Institution: An Adaptive Control Application. Marketing Science Conference.  
Durango-Cohen, E. & Yano, C. (in press, 2009). Forecast-Commitment Contracts with Strategic Customers. MSOM Annual Meeting.  
Yano, C. & Durango-Cohen, E. (2007). Optimizing the Customer's Forecast in a Forecast-Commitment Contract. MSOM Annual Meeting.  
Durango-Cohen, E. & Yano, C. (2006). Channel Pricing Implications for a Supply Chains with Competing Store and National Brands. MSOM Annual Meeting.

## Presentation of Refereed Papers

### International

Durango-Cohen, E. (2007). Optimizing the Customer's Forecast in a Forecast-Commitment Contract. MSOM Annual Meeting, Beijing, China.

### National

Durango-Cohen, E. & Yano, C. (2009). Forecast- Commitment Contracts with Strategic Customers. Manufacturing Service and Operations Management, Boston, Massachusetts.  
Durango-Cohen, E. (2009). Optimizing Direct-marketing Strategies for Public Broadcasting Institution: An Adaptive Control Application. INFORMS Marketing Science Annual Conference, Ann Arbor, Michigan.

## Presentation of Non-Refereed Papers

### International

Durango-Cohen, E. & Wagman, L. (2010). Strategic Obfuscation of Production Capacities. INFORMS National Meeting, San Diego, California.  
Durango-Cohen, E. & Shanthikumar, J. Geroge (1998). Supply Contracts in a Capacity-Constrained Supplier Oligopoly. INFORMS Annual Conference, Montreal, Canada.

### Local

Durango-Cohen, E. (2011). Using the EM Algorithm to Capture Heterogeneity in Member Behavior at Chicago Public Radio. DePaul University, Chicago, Illinois.  
Durango-Cohen, E. (2010). Post-Hoc Segmentation Analysis in Non-Profit Fundraising. Industrial Engineering and Management Sciences Seminar, Evanston, Illinois.

### National

Durango-Cohen, E. (2009). Modeling Member Contribution Behavior in Public Broadcasting Fundraising. INFORMS, San Diego, California.  
Durango-Cohen, E. (2007). Vertical De-Integration in the Supply Chain: Selling the Retailer's Factory. INFORMS Annual Conference, Seattle, Washington.  
Durango-Cohen, E. (2006). Channel Pricing Implications for Supply Chains with Competing Store and National Brands. MSOM Annual Meeting, Atlanta, Georgia.  
Durango-Cohen, E. (2005). Supplier Pricing of National and Store Brands under Capacity Constraints. INFORMS Annual Conference, San Francisco, California.  
Durango-Cohen, E. & Yano, C. (2001). Modeling Forecast-Commitment & Production-Ordering Decisions in Long-Term Customer Supplier Relationships. INFORMS Annual Conference, Miami, Florida.  
Durango-Cohen, E. & Yano, C. (2000). Modeling Capacity Allocation Decisions in Long-term Buyer-Supplier Relationships. INFORMS National Meeting, Salt Lake, Utah.  
Durango-Cohen, E., Shanthikumar, J. Geroge, & Yano, C. (1999). Allocation Strategies: Reconciling Short versus Long Term Objectives. INFORMS Annual Conference, Philadelphia, Pennsylvania.  
Durango-Cohen, E., Shanthikumar, J. Geroge, & Yano, C. (1998). Cost Versus Flexibility: Supply Contracts in a Capacity-Constrained Supplier Oligopoly. MSOM Annual Meeting, Seattle, Washington.

## Grants

### Funded

2010: Chmielewski, D. & Durango-Cohen, E., Profit Control: A New Paradigm in Control System Design, GOV-National Science Foundation (NSF).  
2008: Durango-Cohen, E., Optimizing Direct-marketing Strategies for Public Service Broadcasting Institution: An Adaptive Control Application(\$5,000.00).

## Dissertation

### Dissertation

Analysis of Supply Contracts in Capacity-Constrained Environments

## Papers Under Review

Durango-Cohen, E. (2011). "Modeling Donor Heterogeneity in Public-Broadcasting Fundraising," Initial submission to European Journal Of Operational Research.  
Durango-Cohen, E. & Wagman, L. (2010). "Strategic Obfuscation of Production Capacities," Initial submission to .  
Durango-Cohen, E. & Yano, C. (2008). "Impact of Capacity on Pricing Decisions in Supply Chains with Competing Store and National Brands," Initial submission to IIE Transactions.  
Durango-Cohen, E. & Yano, C. (2007). "Should a Retailer Sell its Store-Brand Factory?," Revised and resubmitted to Management Science.

## Working Papers

Durango-Cohen, E., Durango-Cohen, P., & Wagman, L. (2010). "Optimal Probing of Myopic Consumers: The Case of Chicago Public Radio,".  
Durango-Cohen, E. & Durango-Cohen, P. (2009). "Optimizing Direct-marketing Strategies for Public Service Broadcasting Institution: An Adaptive Control Application" targeted for Marketing Intelligence & Planning.  
Durango-Cohen, E. (2006). "Analysis of Supply Contracts with Static Commitments in a Capacity-Constrained Environment" targeted for European Journal Of Operational Research.

## Service:

### Service to the University

#### Department Assignments

##### Member:

2009-2010: Undergraduate Program & Curriculum Committee  
2006-2007: Curriculum Development Committee

##### Other Institutional Service Activities:

2009-2010: Florence Dunbar Essay Contest: Essay Judge

##### Writing Student Recommendations:

2008-2009: Recommendation Writing: Wrote letters of recommendation for undergraduate and graduate students applying for Masters and Doctoral programs.

#### College Assignments

##### Member:

2010-2011: Undergraduate Program and Curriculum Committee  
2010-2011: Undergraduate Program & Curriculum Committee  
2010-2011: BSBA Committee - AOL Sub Committee  
2008-2009: Research and Faculty Development Committee  
2006-2007: Graduate Program and Development Committee  
2006-2007: Academic Policy Ad Hoc Committee  
2006-2007: Graduate Program and Curriculum Development  
2006-2007 – 2007-2008: Faculty Recruiting Committee

##### Other Institutional Service Activities:

2008-2009: Recruitment Activity: Presented talk titled: 'How to Succeed in Today's Economic Environment' for MBA recruitment open house.

#### University Assignments

##### Member:

2010-2011: Dean's Review Committee  
2010-2011: Leadership Academy Award Reviewer  
2009-2010: Campus Judicial Board  
2007-2008: Leadership Academy Scholarship Committee  
2007-2008: Leadership Academy Scholarship Committee  
2007-2008: Leadership Academy Scholarship Committee  
2007-2008 – 2008-2009: Leadership Academy Scholarship Committee  
2006-2007: IPRO Resolution Task Force  
2006-2007: Campus Judicial Board

2006-2007 – 2007-2008: Leadership Academy Scholarship Committee

**Mentoring Activities:**

2007-2008: Softmore Retreat Participant  
2005-2006: Softmore Retreat Participant

**Other Institutional Service Activities:**

2007-2008: Undergraduate Admissions Outreach: Participated in Undergraduate Open House. Conducted a presentation on what it means to be a business major, and met with prospective students and their parents.  
2005-2006: Undergraduate Admissions Outreach: Participated in Undergraduate Open House. Conducted a presentation on what it means to be a business major, and met with prospective students and their parents.

**Service to the Profession**

**Academic Conference: Panelist**

2009: INFORMS National Meeting, San Diego, California (National).

**Officer: Organization / Association**

2010: INFORMS - Junior Faculty Interest Group (International).

**Reviewer: Ad Hoc Reviewer for a Journal**

2006 – 2009: IIE Transactions (National).  
2006 – 2009: Management Science (National).  
2007 – 2008: Naval Research Logistics (National).

**Faculty Development**

**Research-Related Conference/Seminar**

2009: Center for Operations and Supply Chain Management. Kellogg Operations Workshop. Evanston, Illinois.