

ERICA L. PLAMBECK

Stanford University Graduate School of Business,
655 Knight Way, Stanford, CA 94305
(650) 736-1080 • elp@stanford.edu

ACADEMIC APPOINTMENTS

At Stanford Graduate School of Business since 2000

Charles A. Holloway Professor of Operations, Information and Technology (04/15—present)

Walter Kenneth Kilpatrick Professor of Operations, Information and Technology (04/10—03/15)

Professor of Operations, Information and Technology (09/05—03/10)

Associate Professor of Operations, Information and Technology (10/04—08/09)

Assistant Professor of Operations, Information and Technology (07/00—09/04)

Woods Institute for Environment, Stanford University

Senior Fellow (10/05—8/15, 10/18—present)

EDUCATION

Ph.D. Engineering Economic Systems and Operations Research 2000, Stanford University, CA

Diploma Economics 1996, London School of Economics, London, UK

M.Phil. Management Studies 1995, University of Cambridge, Cambridge, UK

B.S. Industrial Engineering and Mathematics 1994, University of Wisconsin, Madison, WI

TEACHING EXPERIENCE

Operations Management

Environmental Science for Managers

Environmental Entrepreneurship

Business and Environmental Sustainability

PhD STUDENTS (and first appointments after graduation)

Li Chen, 2005, "Optimal Information Acquisition, Inventory Control, and Forecast Sharing in Operations Management," Associate Professor, Fuqua School of Business, Duke University

Enis Kayis, 2008, "Delegation in Procurement Contracting," Assistant Professor, Industrial Engineering Department, Ozyegin University, Turkey

Ozge Islegen, 2011, "Capacity Management and Environmental Sustainability," Assistant Professor, Kellogg School of Management, Northwestern University

Nur Sunar, 2013, "Management Problems in Energy and Sustainability," Assistant Professor, Keenan Flagler Business School, University of North Carolina

Erjie Ang, 2015, "Contemporary Issues in Service and Operations Management" Data Scientist Facebook

Jing Ma, 2016, "Essays on Energy Management and Public Health" Data Scientist AOL Advertising

Sara Kwasnick, 2018, "Optimal Emergency Department Wait Time Prediction" Scientist Airbnb

Danqi Luo, Jae Hyuck Park, current

HONORS & GRANTS

Research Grant, Stanford Institute for Innovation and Entrepreneurship in Developing Economies 2017

Sustainable Palm Oil Research Grant, Global Development and Poverty Initiative 2015

Food Waste Grant from UPS Foundation 2014

Precourt Energy Efficiency Center Grant 2009, 2010

Meritorious Service Award Manufacturing & Service Operations Management 2008

Faculty Pioneer Award 2005 from Aspen Institute and World Resources Institute

Presidential Early Career Award for Scientists and Engineers 2004

National Science Foundation CAREER/PECASE Grant 2003-2008
Nicholson Prize for Best Student Paper, INFORMS 2000
British Marshall Scholarship 1994-1996

PROFESSIONAL SERVICE

Area Editor, Environment, Energy and Sustainability, *Operations Research* 2018 - present
Associate Editor for *Operations Research* 2004 – 2018
Associate Editor for *Manufacturing & Service Operations Management* 2006 – present
Co-Editor, Special Issue on the Environment of *Manufacturing & Service Operations Management* 2013
Founding Co-Chair and Conference Organizer, Sustainability Interest Group 2010-2012
Associate Editor for *Management Science* 2004 – 2012
Review & Editor Selection Committee *Manufacturing & Service Operations Management* 2005
Reviewer for NSF, *Journal of Economics and Management Strategy*, *Mathematics of Operations Research*,
Marketing Science, *Decision Science*, *Operations Research*, *Management Science*, *Manufacturing & Service
Operations Management*
INFORMS Finance Committee 2007 - 2009
Judge, MSOM Student Paper Competition, 2002, 2003, 2005
Chair, MSOM Student Paper Competition 2006
Organizer of INFORMS Conference Sessions 2002, 2003, 2004, 2006, 2012, 2013, 2017 Invited Supply
Chain Track 2007, 2012

UNIVERSITY SERVICE

Sustainability Design Team 2018
GSB OIT Area Coordinator 2015 – present
Executive Committee Emmet Interdisciplinary Program in Environment and Resources 2006 - present
GSB Dean Search Committee 2015-2016
GSB OIT PhD Program Liaison 2011-2014
GSB Dean's Advisory Group 2009 - 2011
MBA – MS in Environment & Resources Joint Degree, Steering Committee 2005 – 2010
GSB Public Management Program Leadership Committee 2004-2010
Precourt Energy Efficiency Center Steering and Grant Review Committee 2008-2010
GSB Dean Selection Committee 2009
Chair, GSB Energy and Environmental Faculty Search Committee 2008
GSB Sustainability Building Committee 2006
US Business Council for Sustainable Development 2004 Meeting at Stanford, organizer
Faculty Leadership Committee for Environment, 2003 - 2005
Research Committee, Institute for Environment 2004 – 2005
OIT Seminar organizer, 2001-2004
Academic Coordinating Committee 2001- 2005
Advisor to Quest Scholars 2000-2009
Faculty supervisor of MBA study trips, 2001, 2003
Rhodes-Marshall Committee 1999-2001

PEER-REVIEWED PUBLICATIONS

- [1] Kalkanci, B., and Plambeck, E.L. 2018. Reveal the Supplier List? A Trade-Off in Capacity vs. Responsibility. forthcoming in *Manufacturing & Service Operations Management*.
- [2] Kalkanci, B. and Plambeck, E.L. 2018. Managing Supplier Social and Environmental Impacts with Voluntary vs. Mandatory Disclosure to Investors. forthcoming in *Management Science*.
- [3] Plambeck, E.L. and Taylor, T.A. 2018. Testing by Competitors in Enforcement of Product Standards. forthcoming in *Management Science*.

- [4] Sunar, N., and Plambeck, E.L. 2016. Allocating Emissions Among Co-Products: Implications for Procurement and Climate Policy *Manufacturing & Service Operations Management* **18** (3) 414–428.
- [5] Plambeck, E.L., and Taylor, T. 2016. Supplier Evasion of a Buyer’s Audit: Implications for Motivating Supplier Social and Environmental Responsibility, *Manufacturing & Service Operations Management* **18** (2) 184–197.
- [6] Ang, E. Kwasnick, S., Bayati, M. , Plambeck, E.L. and Aratow, M. 2015. Accurate ED Wait Time Prediction. *Manufacturing and Service Operations Management* **18** (1) 141–156.
- [7] Plambeck, E.L., and Taylor, T. 2013. On the Value of Input-Efficiency, Capacity-Efficiency, and the Flexibility to Rebalance Them, *Manufacturing & Service Operations Management* **15** (4) 630-639.
- [8] Plambeck, E.L. 2013. Operations Management Challenges for Some “Clean-Tech” Firms, *Manufacturing & Service Operations Management* **15** (4) 527-536.
- [9] Plambeck, E.L. and Wang, Q. 2013. Implications of Hyperbolic Discounting for Optimal Pricing and Scheduling of Unpleasant Services that Generate Future Benefits, *Management Science* **59** (8) 1927-1946.
- [10] Plambeck, E.L. 2013. Reducing Greenhouse Gas Emissions Through Operations and Supply Chain Management, *Energy Economics* **34** (1) S64-S74.
- [11] Kayis, E., Erhun, F. and Plambeck, E.L. 2012. Delegation vs. Control of Component Procurement Under Asymmetric Cost Information and Price-Only Contracts, *Manufacturing & Service Operations Management* **15** (1) 45-56.
- [12] Plambeck, E.L. and Wang, Q. 2009. Effects of E-Waste Regulation on New Product Introduction, *Management Science* **5** (3) 333-347.
- [13] Armony, M., Plambeck, E.L. and Seshadri, S. 2009. Sensitivity of Optimal Capacity to Customer Impatience in an Unobservable M/M/S Queue (Why You Shouldn’t Shout at the DMV), *Manufacturing & Service Operations Management* **11** (1) 19-32.
- [14] Plambeck, E.L. 2008. Asymptotically Optimal Control for an Assemble-to-Order System with Capacitated Component Production and Fixed Transport Costs, *Operations Research* **56** (5) 1158-1171.
- [15] Plambeck, E.L. and Ward, A.R. 2008. Optimal Control of a High-Volume Assemble-to-Order System with Guaranteed Maximum Delays and Expediting, *Queueing Systems* **60** (1-2) 1-69.
- [16] Chen, L. and Plambeck, E.L. 2008. Dynamic Inventory Management with Learning about the Demand Distribution and Substitution Probability, *Manufacturing & Service Operations Management* **10** (2) 236-256.
- [17] Plambeck, E.L., and Taylor, T.A. 2007. Implications of Breach Remedy and Renegotiation Design for Innovation and Capacity, *Management Science* **53**(12) 1859-1871.
- [18] Plambeck, E.L., and Taylor, T.A. 2007. Implications of Renegotiation for Optimal Contract Flexibility and Investment, *Management Science* **53** (12) 1872-1886.
- [19] Taylor, T.A. and Plambeck, E.L. 2007. Supply Chain Relationships and Contracts: the Impact of Repeated Interaction on Capacity Investment and Procurement, *Management Science* **53** (10) 577- 1593.
- [20] Taylor, T.A. and Plambeck, E.L. 2007. Simple Relational Contracts for Capacity Investment: Price- Only vs. Quantity-Commitment, *Manufacturing & Service Operations Management* **9** (1) 94-113.
- [21] Plambeck, E.L. and Ward, A.R. 2007. Note: A Separation Principle for a Class of Assemble to Order Systems with Expediting, *Operations Research* **55** (3) 603-609.
- [22] Plambeck, E.L. and Taylor, T.A. 2006. Partnership in a Dynamic Production System with Unobservable Actions and Noncontractible Output, *Management Science* **52** (10) 1509-1527.
- [23] Plambeck, E.L. and Ward, A.R. 2006. Optimal Control of a High-Volume Assemble-to-Order System, *Mathematics of Operations Research* **31** (3) 453-477.
- [24] Plambeck, E.L. and Taylor, T.A. 2005. Sell the Plant? The Impact of Contract Manufacturing on Innovation, Capacity, and Profitability, *Management Science* **51** (1) 133-150.

- [25] Armony, M. and Plambeck, E.L. 2005. The Impact of Duplicate Orders on Demand Estimation and Capacity Investment, *Management Science* **51** (10) 1505-1518.
- [26] Plambeck, E.L. 2004. Optimal Leadtime Differentiation via Diffusion Approximations, *Operations Research* **52** (2) 213-228.
- [27] Chen, L., and Plambeck, E.L. 2004. Dynamic Bayesian Quantity Control When Some Customers Will Accept a Substitute. *Manufacturing & Service Operations Management* **6** (1) 103-106.
- [28] Plambeck, E.L. and Zenios, S.A. 2003. Incentive Efficient Control of a Make-to-Stock Production System, *Operations Research* **51** (3) 371-386.
- [29] Plambeck, E.L., Kumar, S. and Harrison, J.M. 2001. A Multiclass Queue in Heavy Traffic with Throughput Time Constraints: Asymptotically Optimal Dynamic Controls, *Queueing Systems* **39** (1) 3-54.
- [30] Plambeck, E.L. and Zenios, S.A. 2000. Performance-Based Incentives in a Dynamic Principal-Agent Model, *Manufacturing & Service Operations Management* **2** (3) 240-263.
- [31] Plambeck, E.L., Hope, C. and Anderson, J. 1997. The PAGE95 Model: Integrating the Science and Economics of Global Warming, *Energy Economics* **19** (1) 77-101.
- [32] Plambeck, E.L. and Hope, C. 1996. An Updated Valuation of the Impacts of Global Warming, *Energy Policy* **24** (9) 783-794.
- [33] Plambeck, E.L., Fu, B.R., Robinson, S.M., and Suri, R. 1996. Sample-path Optimization of Convex Stochastic Performance Functions, *Mathematical Programming* **75** (2) 37-176.
- [34] Chen, L., E. and Plambeck 2004. Dynamic Bayesian Quantity Control When Some Customers Will Accept a Substitute, *Manufacturing & Service Operations Management* **6** 103-106.

WORKING PAPERS

- [35] De Zegher, J. , Iancu, D. and Plambeck, E.L. 2018. Sustaining Smallholders and Rainforests by Eliminating Payment Delay in a Commodity Supply Chain – It Takes a Village. Winner, SAWIT Challenge, USAID & Indonesia Business Council for Sustainable Development. Honorable Mention Nicholson Competition.
- [36] Luo, D., Kwasnick, S., Bayati, M., and Plambeck, E.L. 2018. Low-Acuity Patients Delay High-Acuity Patients in an Emergency Department.
- [37] Ma, J. , Tilmans, S., Plambeck, E.L., and Criddle, C.S. 2016. Flow Control in a Wastewater Treatment Plant to Minimize Net Electricity Cost or CO2 Emissions.
- [38] Ma, J., Rajagopal, R. and Plambeck, E.L. 2016. Electric Vehicle Fleet Optimal Nonpreemptive Charging.
- [39] Tilmans, S., Ma, J., Miot, A., Plambeck, E.L. , and Criddle, C.S. 2015. Sustainable Wastewater Treatment: Weighing the Energy Options.

MANAGERIAL PUBLICATIONS

- [40] Plambeck, E.L., Lee, H. and Yatsko, P. 2012. Improving Environmental Performance in Your Chinese Supply Chain *Sloan Management Review* **53** (2) 43-52.
- [41] Lee, H.L., Plambeck, E.L. and Yatsko, P. 2012. Embracing Green in China... with an NGO Nudge *Supply Chain Management Review* **16** (2) 38-45.
- [42] Lee, H.L., Plambeck, E.L. and Yatsko, P. 2012. Incentivizing Sustainability in Your Chinese Supply Chain. *The European Business Review* May 2012.
- [43] Plambeck, E.L. and Denend, L. 2011. The Greening of Wal-Mart's Supply Chain... Revisited, *Supply Chain Management Review* **15** (5) 16-23.
- [44] Plambeck, E.L. and Denend, L. 2008. The Greening of Wal-Mart, *Stanford Social Innovation Review* **6** (2) 53-59.
- [45] Plambeck, E.L. and Denend, L. 2007. The Greening of Wal-Mart's Supply Chain, *Supply Chain Management Review* **11** (5) 18-25.

BOOK CHAPTERS

- [46] Kalkanci, B., Ang, E. and Plambeck, E.L. 2016. Strategic Disclosure of Social and Environmental Impacts in a Supply Chain. in *Environmentally Responsible Supply Chains*, ed. A. Atasu, Springer.
- [47] Islegen, O., Plambeck, E.L., and Taylor, T.A. 2016. Variability in Emissions Cost: Implications for Facility Location, Production and Shipping. . in *Environmentally Responsible Supply Chains*, ed. A. Atasu, Springer.

CASE STUDIES

Process Innovation for Efficiency and Environmental Sustainability in the Building Industry 2018
 Refining Ghana's Palm Oil Supply Chain 2016
 BONE Structure 2016
 Carbon Inventory Buildup Analysis 2016
 Zeta Communities 2011
 Walmart's Sustainability Strategy B 2011
 Water Funds 2010
 American Electric Power: Investing in Forest Conservation 2010
 Ma Jun and the IPE: Using Information to Improve China's Environment 2009
 Interface Update 2008
 Environmental Enhancements in Road Vehicle Technologies 2008
 Standard Sun: Valuing a Renewable Energy Company 2008
 The Nature Conservancy: Conservation Approach to Timberland Investing 2008
 Wal-Mart's Sustainability Strategy 2007
 Khosla Ventures: Investing in Ethanol 2007
 FedEx and Environmental Defense: Building a Hybrid Delivery Fleet 2006
 Ethanol as a Motor Fuel 2006
 Hayward Lumber: Environmental Product Differentiation 2004

INVITED TALKS

Operational Innovation to Profitably Achieve Net Negative CO₂ Emissions

- Keynote, INFORMS 2018

Sustainability & Supply Chain

- Combined session for Sustainability SIG & Supply Chain SIG. MSOM 2018

Sustainability: Where to Focus

- Opportunities and New Directions for Behavioral Operations Management, INFORMS 2015

Motivating Supplier Social and Environmental Responsibility

- M&SOM Sustainability Special Interest Group 6/14
- Universidad de Chile, Santiago 7/14

Greenhouse Gas Emission Accounting: Allocating Emissions from Process to Product

- National Science Foundation Symposium Low Carbon Footprint Supply Chain. 10/10

OM for "Clean Tech"

- Kellogg Operations Workshop, Kellogg Graduate School of Management, Northwestern University, 9/10

Whistleblowing by Competitors in Enforcement of Product Standards

- Alliance for Research on Corporate Responsibility Conference, University of Michigan 5/09
- Kellogg Graduate School of Management, Northwestern University 5/09

Behavioral Issues in Supplier Management

- Utah Winter Operations Conference 1/07

Integrating Operations Management with Management Accounting- A Sampling of O.M. Research

- Plenary, American Accounting Association, Management Accounting Section, Clearwater, Florida 1/06

Relational Contracts in Supply Chain Management

- London Business School 12/06
- Indian Institute of Management, Ahmedabad 11/06
- Wharton School of Business, University of Pennsylvania 1/06
- Kenan-Flagler Business School, University of North Carolina 11/05
- Fuqua Business School, Duke University 11/05
- Lucent, Bell Labs 10/05
- Operation Research Center & Engineering Systems Division, Massachusetts Institute of Technology, 07/05

Optimal Control of Assemble to Order Systems

- Department of Industrial and Systems Engineering, University of Wisconsin, 07/05
- Marshall School of Business, University of Southern California, 06/05
- McComb School of Business, University of Texas, 04/04
- Dell, Roundrock, Texas 04/04
- Multiechelon Inventory Conference, Kellogg Graduate School of Management, Northwestern University, 07/05

Negotiation and Renegotiation in Supply Chain Management

- Supply Chain Thought-Leaders Conference, 07/04

Implications of Breach Remedy and Renegotiation for Design of Supply Contracts

- Sauder School of Business, University of British Columbia, 04/06
- Graduate School of Business, Columbia University, 04/04
- Stern School of Business, New York University, 04/04
- Industrial and Operations Engineering Department, University of Michigan, 04/04
- Olin School of Business, Washington University, 04/04
- Dell, Roundrock, Texas 04/04
- Alliance for Innovative Manufacturing, Stanford University, 04/04
- Genentech, South San Francisco, California 06/04

Renegotiation of Supply Contracts

- Graduate School of Business, Stanford University, 10/02
- Kellogg Operations Workshop, Kellogg Graduate School of Management, Northwestern University, 08/02

Impact of Duplicate Orders on Demand Estimation and Capacity Investment

- The Anderson School, University of California, 05/02
- Industrial Engineering and Operations Research Department, University of California, 05/02
- *Dynamic Principal Agent Models in Supply Chain Management*
- RAPT Technologies, 04/01
- Hewlett Packard Labs, 04/01

Pricing, Leadtime Quotation and Scheduling in a Multi-Class Queue

- Hewlett-Packard Strategic Planning and Modeling Group, 03/01
- Sloan School of Business, Massachusetts Institute of Technology, 10/00
- Graduate School of Business, Columbia University, 10/00
- Stern School of Business, New York University, 10/00

Incentive Efficient Control of a Make-to-Stock Production System

- Fuqua School of Business, Duke University, 03/00
- Sloan School of Business, Massachusetts Institute of Technology, 05/00
- Business School, University of Michigan, 04/00
- Kellogg Graduate School of Management, Northwestern University, 04/00
- Graduate School of Business, Columbia University, 04/00
- Stern School of Business, New York University, 04/00
- INSEAD, Fontainebleau, 04/00
- Judge Institute of Management Studies, Cambridge University, 04/00
- Graduate School of Business, University of Chicago, 01/00
- Industrial Engineering Department, University of Wisconsin, 01/00
- The Anderson School, University of California, 03/00

- Industrial Engineering and Operations Research Department, University of California, 05/00
- Graduate School of Business, Stanford University, 01/00
- Management Science and Engineering, Stanford University, 04/00