JOHN PAUL MACDUFFIE

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A. EDUCATIONAL BACKGROUND

Ph.D. in Management, MIT Sloan School of Management, MIT, Cambridge, MA. 1991.

Dissertation: Beyond Mass Production: Flexible Production Systems and Manufacturing Performance in the World Auto Industry.

Winner of Zenon and Clotilde Zannetos Ph.D. Thesis Prize

B.A. in Sociology, <u>magna cum laude</u>. Harvard University, Cambridge, MA. 1977.

B. EMPLOYMENT HISTORY

Associate Professor, Wharton School, University of Pennsylvania, 1997-present.

Assistant Professor, Wharton School, University of Pennsylvania, 1991-1997.

C. PUBLICATIONS

- 1. Articles Published or Forthcoming in Refereed Journals
 - [1] Kochan, Thomas A., John Paul MacDuffie, and Paul Osterman (1988). "Employment Security at DEC: Sustaining Values Amid Environmental Change," <u>Human Resource Management</u>, Vol. 27, No. 2, pp. 121-144. (Also reprinted in Thomas J. Allen and Michael S. Scott Morton (eds.), <u>Information Technology and the Corporation of the 1990s</u>, pp. 499-518. New York: Oxford University Press, 1994.)
 - [2] MacDuffie, John Paul and Thomas A. Kochan (1995). "Do U.S. Firms Invest Less in Human Resources? Training in the World Auto Industry," <u>Industrial Relations</u>, Vol. 34, No. 2, pp. 147-168. (Also reprinted in Francis Green (ed.), <u>Recent Developments in the Economics of Training</u>, Vol. 1, pp. 189-210. Cheltenham, UK, and Northampton, MA: Edward Elgar, 2007.)
 - [3] MacDuffie, John Paul (1995). "Human Resource Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry," <u>Industrial and Labor Relations Review</u>, Vol. 48, No. 2, pp. 197-221. [#1 of 3 representative papers]

- [4] Ittner, Christopher D. and John Paul MacDuffie (1995). "Explaining Plant-Level Differences in Manufacturing Overhead: Structural and Executional Cost Drivers in the World Auto Industry," <u>Production and Operations Management</u>, Vol. 4, No. 4 (Fall), pp. 312-334.
- [5] MacDuffie, John Paul, Kannan Sethuraman, and Marshall L. Fisher (1996). "Product Variety and Manufacturing Performance: Evidence from the International Automotive Assembly Plant Study," <u>Management Science</u>, Vol. 42, No. 3, pp. 350-369.
- [6] Pil, Frits K. and John Paul MacDuffie (1996). "The Adoption of High Involvement Work Practices," <u>Industrial Relations</u>, Vol. 35, No. 3, pp. 423-455. (Also reprinted in Casey Ichniowski, David I. Levine, Craig Olson, and George Strauss (eds.), <u>The American Workplace: Skills, Pay, and Employment Involvement (Cambridge Studies in Comparative Politics)</u>, pp. 137-171. Cambridge, UK: Cambridge University Press, 2000.)
- [7] MacDuffie, John Paul (1997). "The Road to 'Root Cause': Shop-Floor Problem-Solving at Three Auto Assembly Plants," <u>Management Science</u>, Vol. 43, No. 4, pp. 479-502. (Also reprinted in Robert E. Cole and W. Richard Scott (eds.), <u>The Quality Movement and Organization Theory</u>, pp. 175-200. Thousand Oaks, CA: Sage Publications, 2000.)
- [8] MacDuffie, John Paul and Susan Helper (1997). "Creating Lean Suppliers: Diffusing Lean Production Through the Supply Chain," <u>California Management Review</u>, Vol. 39, No. 4, pp. 118-151.
- [9] Pil, Frits K. and John Paul MacDuffie (1999). "What Makes Transplants Thrive: Managing the Transfer of 'Best Practice' at Japanese Auto Plants in North America," Journal of World Business, Vol. 34, No. 4, pp. 372-391.
- [10] Helper, Susan, John Paul MacDuffie, and Charles Sabel (2000). "Pragmatic Collaborations: Advancing Knowledge While Controlling Opportunism," <u>Industrial and</u> Corporate Change, Vol. 9, No. 3, pp. 443-487.
- [11] Hunter, Larry W., John Paul MacDuffie, and Lorna Doucet (2002). "What Makes Teams Take? Employee Reactions to Work Reorganization," <u>Industrial and Labor Relations Review</u>, Vol. 55, No. 3, pp. 448-472.
- [12] Kogut, Bruce, John Paul MacDuffie, and Charles Ragin (2004). "Prototypes and Strategy: Assigning Causal Credit Using Fuzzy Sets," <u>European Management Review</u>, Vol. 1, No. 2, pp. 114-131.
- [13] Adler, Paul S., Mary Benner, David James Brunner, John Paul MacDuffie, Emi Osono, Bradley R. Staats, Hirotaka Takeuchi, Michael Tushman, and Sidney G. Winter (2009). "Perspectives on the Productivity Dilemma," <u>Journal of Operations Management</u>, Vol. 27, No. 2, pp. 99-113.
- [14] Kim, Jaewon, John Paul MacDuffie, and Frits K. Pil (2010). "Employee Voice and

- Organizational Performance: Team vs. Representative Influence," <u>Human Relations</u>, Vol. 63, No. 3, pp. 371-394.
- [15] MacDuffie, John Paul (2011). "Inter-organizational Trust and the Dynamics of Distrust," Journal of International Business Studies, Vol. 42, No. 1, pp. 35-47.
- [16] MacDuffie, John Paul (2013). "Modularity-as-Property, Modularization-as-Process, and 'Modularity'-as-Frame: Product Architecture Initiatives in the Global Auto Industry," Global Strategy Journal, Vol. 3, pp. 8-40. [#2 of 3 representative papers]
 [Published online in 2012, DOI: 10.1111/j.2042-5805.2012.01048.x]

2. Articles Submitted to Refereed Journals

- [17] MacDuffie, John Paul, Bruce Kogut, Frits Pil, and Charles Ragin (2013). "Competition Among Systems of Complements: Learning Among Prototypes and the Race to Catch Up," revise and resubmit at Management Science, submitted August 2012, resubmission in July 2013. [#3 of 3 representative papers]
- [18] Jacobides, Michael, John Paul MacDuffie, and C. Jennifer Tae (2013). "How Agency and Structure Shaped Value Stasis in the Automobile Ecosystem," under initial review at Strategic Management Journal, submitted August 2013.
- [19] Stevens, Merieke, John Paul MacDuffie, and Susan Helper (2013). "Repairing Damage in Inter-organizational Relationships: Strategies for Achieving Optimal Trust," revise and resubmit for special issue of <u>Organization Studies</u> on "Organizational and Institutional Trust: Failures and Repair," submitted December 2012, revision submitted September 2013.

3. Other Articles (including Chapters in Books)

- [20] London, Manuel and John Paul MacDuffie (1987). "Technological Innovations: Case Examples and Guidelines." <u>Personnel</u>, Vol. 64, No. 11, pp. 26-35.
- [21] MacDuffie, John Paul and John F. Krafcik (1992). "Integrating Technology and Human Resources for High Performance Manufacturing: Evidence from the International Auto Industry," in Thomas A. Kochan and Michael Useem (eds.), <u>Transforming Organizations</u>, pp. 209-226. New York: Oxford University Press.
- [22] Kochan, Thomas A., Joel Cutcher-Gershenfeld, and John Paul MacDuffie (1992). "Employee Participation, Work Redesign, and New Technology: Implications for Manufacturing and Engineering Practice," in Gavriel Salvendy (ed.), <u>Handbook of Industrial Engineering</u> (2nd ed.), Volume 2, pp. 798-814. New York: John Wiley and Sons, Inc. Also published as "Integrating Employee Participation, Work Redesign, and New Technology: Experience in the U.S.," in Eliezer Rosenstein and William Lafferty (eds.), <u>International Handbook of Participation in Organizations</u>, pp. 250-266. New York: Oxford University Press, 1992.

- [23] MacDuffie, John Paul (1995). "Workers' Roles in Lean Production: The Implications for Worker Representation," in Steve Babson (ed.), <u>Lean Work: Empowerment and Exploitation in the Global Auto Industry</u>, pp. 54-69. Detroit, MI: Wayne State University Press.
- [24] MacDuffie, John Paul and Frits K. Pil (1995). "The International Assembly Plant Study: Philosophical and Methodological Issues," in Steve Babson (ed.), <u>Lean Work:</u> Empowerment and Exploitation in the Global Auto Industry, pp. 181-196. Detroit, MI: Wayne State University Press.
- [25] Fisher, Marshall L., Anjani Jain, and John Paul MacDuffie (1995). "Strategies for Product Variety: Lessons from the Auto Industry," in Edward Bowman and Bruce Kogut (eds.), Redesigning the Firm, pp. 116-154. New York: Oxford University Press.
- [26] Katz, Harry and John Paul MacDuffie (1995). "Collective Bargaining in the U.S. Auto Assembly Sector," in Paula Voos (ed.), <u>Contemporary Collective Bargaining in the Private Sector</u>, pp. 181-224. Madison, WI: Industrial Relations Research Association.
- [27] MacDuffie, John Paul (1996). "International Trends in Work Organization in the Auto Industry: National-Level vs. Company-Level Perspectives," in Kirsten Wever and Lowell Turner (eds.), <u>The Comparative Political Economy of Industrial Relations</u>, pp. 71-113. Madison, WI: Industrial Relations Research Association.
- [28] MacDuffie, John Paul (1996). "Automotive White-Collar: The Changing Status and Roles of Salaried Employees in the North American Auto Industry," in Paul Osterman (ed.), <u>Broken Ladders: Managerial Careers in the New Economy</u>, pp. 81-125. New York: Oxford University Press.
- [29] MacDuffie, John Paul and Frits K. Pil (1996). "From Fixed to Flexible: Automation and Work Organization Trends from the International Assembly Plant Study," in Ulrich Jürgens and Takahiro Fujimoto (eds.), <u>Transforming Auto Assembly International Experiences with Automation and Work Organization</u>, pp. 238-254. Frankfurt: Springer-Verlag.
- [30] Shimada, Haruo and John Paul MacDuffie (1998). "Industrial Relations and 'Humanware': Japanese Investments in Automobile Manufacturing in the United States," in Schon Beechler (ed.), The Japanese Enterprise. London: Routledge.
- [31] Pil, Frits K. and John Paul MacDuffie (1999). "Organizational and Environmental Factors Influencing the Use and Diffusion of High-Involvement Practices," in Peter Cappelli (ed.), <u>Employment Practices and Business Strategy</u>, pp. 81-106. New York: Oxford University Press.
- [32] MacDuffie, John Paul and Susan Helper (1999). "Creating Lean Suppliers: Diffusing Lean Production Through the Supply Chain," in Jeffrey Liker, Paul Adler, and Mark Fruin (eds.), Remade in America: Transplanting and Transforming Japanese Production Systems, pp. 154-200. New York: Oxford University Press. (Note: This is a longer version of the California Management Review article [8].)

- [33] Pil, Frits K. and John Paul MacDuffie (1999). "Transferring Competitive Advantage Across Borders: A Study of Japanese Transplants in North America," in Jeffrey Liker, Paul Adler, and Mark Fruin (eds.), Remade in America: Transplanting and Transforming Japanese Production Systems, pp. 39-74. New York: Oxford University Press. (Note: This is a longer version of the Journal of World Business article [9].)
- [34] MacDuffie, John Paul (1999). "The Transfer of Organizing Principles in the World Auto Industry: Cross-Cultural Influences on Replication at Opel Eisenach," in Anna Comacchio, Giuseppe Volpato, and Arnaldo Camuffo (eds.), <u>Automation in Automotive Industries</u>, pp. 119-137. Berlin: Springer-Verlag.
- [35] Helper, Susan and John Paul MacDuffie (2001). "E-volving the Auto Industry: E-Business Effects on Consumer and Supplier Relationships," in Robert Litan and Alice Rivlin (eds.), <u>Tracking a Transformation: E-business and the Terms of Competition in Industries</u>, pp. 178-213. Washington, DC: Brookings Institution Press.
- [36] Katz, Harry, John Paul MacDuffie, and Frits K. Pil (2002). "Autos: Continuity and Change in Collective Bargaining," in Paul F. Clark, John T. Delaney, and Ann C. Frost (eds.), Collective Bargaining in the Private Sector, pp. 55-90. LERA Research Volumes. Madison, WI: Industrial Relations Research Association.
- [37] MacDuffie, John Paul (2003). "Leaning Toward Teams: Divergent and Convergent Trends in Diffusion of Lean Production Work Practices," in Thomas A. Kochan and David P. Lipsky (eds.), <u>Negotiations and Change: From the Workplace to Society</u>, pp. 94-116. Ithaca, NY: Cornell University Press.
- [38] Helper, Susan and John Paul MacDuffie (2003). "Suppliers and Intermediaries," in Bruce Kogut (ed.), <u>The Global Internet Economy</u>, pp. 331-380. Cambridge, MA: MIT Press. Also cited under pre-publication working title "B2B and Modes of Exchange: Evolutionary and Transformative Effects."
- [39] MacDuffie, John Paul and Susan Helper (2006). "Collaboration in Supply Chains: With and Without Trust," in Charles Heckscher and Paul S. Adler (eds.), <u>The Firm as a Collaborative Community: The Reconstruction of Trust in the Knowledge Economy</u>, pp. 417-466. New York: Oxford University Press.
- [40] MacDuffie, John Paul (2008). "HRM and Distributed Work: Managing People Over Distance," in James P. Walsh and Arthur P. Brief (eds.), <u>Annals of the Academy of Management</u>, Vol. 1, No. 1, pp. 549-616. New York: Lawrence Erlbaum Inc.
- [41] Brookfield, Jonathan, Ren-Jye Liu, and John Paul MacDuffie (2008). "Taiwan's Bicycle Industry A-Team Battles Chinese Competition with Innovation and Cooperation." <u>Strategy & Leadership</u>, Vol. 36, No. 1, pp. 14-19.
- [42] MacDuffie, John Paul and Takahiro Fujimoto (2010). "Get Ready for the Complexity Revolution: Why Automakers Will Keep Ruling the Auto Industry." <u>Harvard Business Review</u> (June), pp. 23-25.

- [43] Jacobides, Michael G. and John Paul MacDuffie (2013). "How to Drive Value Your Way," <u>Harvard Business Review</u> (July-August), pp. 46-56.
- [44] Katz, Harry, John Paul MacDuffie, and Frits K. Pil (forthcoming). "Crisis and Recovery in the U.S. Auto Industry: Tumultuous Times for a Collective Bargaining Pacesetter," in Howard R. Stanger, Paul F. Clark, and Ann C. Frost (eds.), <u>Collective Bargaining Under Duress: Case Studies of Major North American Industries</u>. LERA Research Volumes. Ithaca, NY: ILR Press.

4. Books

[45] Kochan, Thomas A., Russell D. Lansbury, and John Paul MacDuffie (eds.) (1997).

<u>After Lean Production: Evolving Employment Practices in the World Auto Industry.</u>

Ithaca, NY: Cornell University Press, 352 pages.

Co-author of Chapter 1 ("Introduction" with Kochan and Lansbury); pp. 3-8.

Chapter 2 ("Changes in Auto Industry Employment Practices: An International Overview" with Frits K. Pil); pp. 9-42.

Chapter 4 ("United States: Variations on a Theme," with Kochan, Pil, Paul S. Adler, and Saul Rubenstein); pp. 61-83.

Chapter 16 ("Conclusion: After Lean Production?" with Kochan and Lansbury); pp. 303-324.

5. Invited Papers

See publication #40; I was invited to write the chapter for AOM Annals.

6. Reports and Other Materials

Published book reviews

- [46] Review of <u>Japan's California Factories: Labor Relations and Economic Globalization</u> by Ruth Milkman (1993), in <u>Industrial and Labor Relations Review</u>, Vol. 47, pp. 132-3.
- [47] Review of <u>Alternatives to Lean Production: Work Organization in the Swedish Auto Industry</u> by Christian Berggren (1994), in <u>Contemporary Sociology</u>, Vol. 23, pp. 204-206.
- [48] Review of <u>The New American Workplace: Transforming Work Systems in the United States</u> by Eileen Appelbaum and Rosemary Batt (1995), in <u>Industrial and Labor Relations Review</u>, Vol. 48, No. 3, pp. 593-595.
- [49] Review of Competitive Advantage through People: Unleashing the Power of the Work Force by Jeffrey Pfeffer (1995), in Administrative Science Quarterly, Vol. 40, No. 3, pp. 524-527.

[50] Review of <u>The Taylorized Beauty of the Mechanical: Scientific Management and the Rise of Modernist Architecture</u> by Mauro Guillén (2007), in <u>Administrative Science Quarterly</u>, Vol. 52, No. 3, pp. 492-496.

Unpublished working papers

- [51] MacDuffie, John Paul and Michael Maccoby (1986). "Organizational Implications of New Technologies: Remote Work Centers at AT&T Communications," Working Paper #154D, Kennedy School of Government, Harvard University.
- [52] Krafcik, John F. and John Paul MacDuffie (1989). "Explaining High Performance Manufacturing: The International Assembly Plant Study," International Motor Vehicle Program, MIT.

D. SELECTED PRESENTATIONS (2001-2013)

"Competition Among Systems of Complements: Learning Among Prototypes and the Race to Catch Up," Bocconi Business School, Milan, Italy, June 2013.

"Repairing Damage in Inter-organizational Relationships: Strategies for Achieving Optimal Trust," Bocconi Business School, Milan, Italy, June 2013.

"Strategic and Operational Influences on Manufacturing Location Decisions," Industry Studies Association Conference, Kansas City, MO, May 2013.

"When Value Sticks Around: Why Automobile OEMs Still Rule Their Sector," presented at:

Evolution of Organizations & Industries Seminar, Wharton School, November 2012. Strategic Management Society, Prague, Czech Republic, October 2012. Academy of Management, BPS/ENT symposium, Boston, MA, August 2012. Industry Studies Association, Pittsburgh, PA, May 2012. New York University, Strategy Seminar, New York, April 2012.

"Managing Complexity in the Global Auto Industry: Challenges for Toyota," Toyota Custom Program, University of Pennsylvania, Philadelphia, PA, September 2012.

"International Trends in Work Organization in Advanced Manufacturing: Moving Towards and Away from Flexibility," International Labor and Employment Relations Association, Philadelphia, PA, July 2012.

"Innovation and Strategy in the Global Auto Industry," Academy of International Business, Washington, DC, July 2012.

"Innovation Blowback in the Global Auto Industry: China, Korea, and Japan," conference on Emerging Market Firm Competitiveness, Fox School, Temple University, Philadelphia, PA, November 2011.

"Prototypes Under Pressure: Complementarities and the Race to Catch Up," presented at:

Operations and Management Science Group, Ross School, University of Michigan, September 2011.

Bowman Seminar, Wharton School, University of Pennsylvania, Philadelphia, PA, October 2011.

"Taking Stock and Looking Forward: The HR-Performance Research Agenda," Professional Development Workshop, Academy of Management, San Antonio, TX, August 2011,

"Davids & Goliaths in the Global Automotive Industry," Academy of Management Symposium, San Antonio, TX, August 2011.

"The International Motor Vehicle Program: Beyond <u>The Machine That Changed the World,"</u> symposium in honor of Prof. Daniel Roos, MIT, Cambridge, MA, April 2011.

"Red Queen Dynamics and Organizational Design: Does Convergence in Performance Lead to Convergence in Form?" presented at:

Institute for Work and Employment Relations, MIT Sloan School, Cambridge, MA, September 2010.

Anderson School of Management, UCLA, Los Angeles, May 2010.

"Inter-Organizational Collaboration: Why Ecosystems Matter," Professional Development Workshop on Ecosystems, Academy of Management, Montreal, Quebec, August 2010.

"Inter-organizational Trust and the Dynamics of Distrust," Academy of International Business, Rio de Janeiro, Brazil, June 2010.

"Modularization Amid Integrality," Academy of International Business, Rio de Janeiro, Brazil, June 2010.

"The Disintegration of Production," presented at:

Society for the Advancement of Socio-Economics, Philadelphia, PA, June 2010. AIB/CIBER Conference on Research Frontiers, Charleston, SC, December 2009.

"Production Flexibility and Modularity," Federal Reserve Bank of Chicago annual conference on the state of the U.S. auto industry, Detroit, MI, May 2010.

"Location Trends in the Global Auto Industry," Industry Studies Association, Chicago, IL, May 2010.

"After the Recovery: Prospects for the U.S. Auto Industry," Wharton School, Joint Boards Meeting, University of Pennsylvania, Philadelphia, PA, October 2009.

- "The Global Auto Industry Crisis: Looking Back and Ahead," presented at:
 - Professional Development Workshop, Academy of Management, Chicago, IL, August 2009.
 - Lauder/CAN Summer Workshop, Wharton School, University of Pennsylvania, Philadelphia, PA, July 2009.
- "How Industry Studies Research Can Inform Public Policy in a Crisis," Industry Studies Association, Chicago, IL, May 2009.
- "Equifinal Paths to High Performance? Red Queen Competition in the World Auto Industry," Management Science Seminar, Fisher School of Business, Ohio State University, Columbus, OH, October 2008.
- "Exploration, Exploitation, and Continuous Learning: Toyota and Bypassing Dichotomies," All-Academy Symposium on "Perspectives on the Productivity Dilemma," Academy of Management, Anaheim, CA, August 2008.
- "Increasing the Academic Relevance of Industry Studies: Research and Methodological Considerations," Sloan Industry Studies Conference, Boston, MA, May 2008.
- "Technological and Organizational Barriers to Modularity: Persistent Integrality in the Global Automotive Industry," Operations and Management Science Seminar, Carlson School of Management, University of Minnesota, Minneapolis, MN, April 2008.
- "Still Young at Forty: Challenges of Maturation for the Korean Auto Industry," Global Automotive Conference in honor of the 40th anniversary of Hyundai Motor Company, Seoul, Korea, February 2008.
- "Automotive Supplier Relations Trends: International Comparisons," Symposium, Labor and Employment Relations Association, New Orleans, LA, January 2008.
- "Convergence In (and Evolution of) Best Practice: A Longitudinal Perspective," Academy of Management Symposium, Philadelphia, PA, August 2007.
- "Modularity and the Geography of Innovation," invited plenary speaker, Sloan Foundation Industry Centers Annual Meeting, Cambridge, MA, April 2007.
- "Human Resource Management Practices and Manufacturing Performance: Methodological Issues in International Comparative Research," Academy of Management Symposium, Atlanta, GA, August 2006.

"Modularity and the Automobile: What Happened When the Concept Hit the Road," IMVP Automotive Mini-Conference, Cambridge, MA, June 2006.

"High Performance Work Systems and Worker Representation: Combined Effects on Manufacturing Performance," Labor and Employment Relations Research Association 58th Annual Meeting, Boston, MA, January 2006.

"Collaboration in Supply Chains: With and Without Trust," presented at:

Sloan Foundation Industry Centers Annual Meeting, Cambridge, MA, December 2005.
IMVP Sponsors' Meeting, Seoul, Korea, and Tokyo, Japan, October 2005.
Academy of Management, Showcase Symposium, Honolulu, HI, August 2005.
Intercollegiate Committee for Organizational Studies Seminar, University of Michigan, Ann Arbor, MI, March 2005.

Reginald H. Jones Center Seminar, Wharton School, University of Pennsylvania, Philadelphia, PA, March 2005.

"Coordination in Supply Chains: Comparing Modes of Exchange," Academy of Management, Professional Development Workshop, Honolulu, HI, August 2005.

"Convergence in High Performance Systems: Red Queen Innovation of New Capabilities," (with Bruce Kogut), Academy of Management, Honolulu, HI, August 2005.

"Modularity and Outsourcing: Myths and Realities, Risks and Benefits," IMVP Annual Sponsors Meeting, Cambridge University, October 2004.

"Training, Teams, and Manufacturing Performance," Institute for Work and Employment Relations, Sloan School of Management, MIT, Cambridge, MA, April 2004.

"Outsourcing in the Global Automotive Industry: Implications for U.S. Employment," Sloan Foundation Industry Centers Annual Meeting, Atlanta, GA, April 2004.

"Overview of International Motor Vehicle Program Research," IMVP-RIETI Automotive Symposium, Tokyo, Japan, September 2003.

"Toyota's Path to Globalization: Implications for Theory and Practice," Reginald H. Jones Center Seminar, Wharton School, University of Pennsylvania, Philadelphia, PA, February 2003.

"Tensions in Supplier Relations from Changing Division of Labor and Blurred Knowledge Boundaries," Research Advisory Group, Center for Human Resources, Wharton School, University of Pennsylvania, Philadelphia, PA, November 2002.

"Navigating Auto's Next Economy," International Motor Vehicle Program Annual Sponsors Meeting, Endicott House, Dedham, MA, September 2002.

"Designed in China: Implications for Asian Comparative Advantage," Wharton Asian Alumni Meeting, Tokyo, Japan, July 2002.

"The Quality Challenge: How the Global Automotive Industry Has Responded," Nokia Compass 17 Global Leadership Conference, Detroit, MI, May 2002.

"Flexible Factories and Manufacturing Performance," Society of Automotive Engineers Annual Conference, Spartanburg, SC, April 2002.

"B2B and Modes of Exchange," Research Advisory Group, Center for Human Resources, Wharton School, University of Pennsylvania, Philadelphia, PA, November 2001.

"The New Locational Logic: Implications for Employment Relationships," Research Advisory Group, Center for Human Resources, Wharton School, University of Pennsylvania, Philadelphia, PA, June 2001.

"Modularity and Build-to-Order," Wharton e-Business Initiative (WeBI) conference, Wharton School, University of Pennsylvania, Philadelphia, PA, May 2001.

"The Global Supply Chain in the World Auto Industry: Role of the New 'Mega-Suppliers,'" Sloan Foundation Annual Industry Centers Meeting, Cambridge, MA, April 2001.

"Flexible Work Organization and High-Commitment HR Policies in the Auto Industry: What We've Learned," Sloan Foundation Annual Industry Centers Meeting, Cambridge, MA, April 2001.

E. RESEARCH CENTER ADMINISTRATION

<u>Director</u>, Program on Vehicle and Mobility Innovations (PVMI), 2012-present. New program established within Wharton's Mack Center on Technological Innovation.

<u>Director</u>, International Motor Vehicle Program (IMVP), 2001-2012. Primary administrator for international research network involving 30+ researchers from 15+ universities in the U.S., Europe, and Asia. Responsible for setting research agenda, soliciting research proposals, fundraising from sponsors, and allocating funds to research projects. Managed annual budget ranging from \$400,000 to \$1.2 million. Extensive interaction with industry sponsors, including General Motors, Ford, DaimlerChrysler, Renault, BMW, Volkswagen, Toyota, Honda, Nissan, Subaru, Hyundai/Kia and Hyundai Mobis (supplier group), Delphi, Johnson Controls, and Lear. Participated in 2004, 2005, 2006, and 2007 Automotive

Governors Meeting at World Economic Forum, Davos, Switzerland. Primary organizer of annual briefing meetings for industry sponsors and annual researchers' meeting, including: Automotive Research Conferences in Zurich, Switzerland (2012); Tokyo, Japan (2011); Berlin, Germany (2009); Detroit, MI (2009); Tokyo, Japan (2009); and Seoul, Korea (2008). Member of Federal Reserve Bank's Automotive Experts Group, 2010-present. Member of World Economic Forum's Industry Agenda Council, 2010-2012.

Co-Director, Reginald H. Jones Center for Management Policy, Strategy, and Organization, Wharton School, 2001-2005. Primary administrator from January 2003. Primary responsibility for organizing conferences, including "Putting Ideas to Work: From Knowledge to Action" (May 2004); "Sidfest," a *festschrift* for Prof. Sidney Winter (October 2003); "Catching Our Breath: Reorienting Strategy During the Internet's Quiet Time," Wharton Impact Conference (May 2003); and "New American Rules for Business? Post-Scandal Directions for Policy and Governance," Wharton Impact Conference (October 2002). Joint responsibility for allocating research funds to Wharton faculty, for convening weekly "brown bag" seminar series, for fundraising and sponsor relations, and for supervising administrative staff.

F. TEACHING

1. Courses Taught

MBAExec Management 613, <u>Managing the Enterprise</u>, Summer 2013 in Philadelphia and San Francisco. Course that combines MGMT 611 (Established) and MGMT 612 (Emerging) content for MBAExec students.

Management 890 / OPIM 890, Global Supply Chain Management in Japan, Global Modular Course (with Prof. Morris Cohen), Summer 2013.

Management 612, <u>Management of the Emerging Enterprise</u>, new required course in Wharton's redesigned MBA curriculum that integrates human and social capital, strategy, and global management topics. Head of department committee designing the course. Spring 2013.

Management 751, <u>Strategic Management of Human Assets</u>, 2006, 2007, 2009, 2010, 2011, 2012. Advanced elective for MBA students who have taken Management 621. Also taught in 2012 (Spring and Fall) and 2013 (Spring) to MBAExec students.

Management 621, <u>Managing People at Work</u>, Fall 1991-1998, 2000-2006, 2008-2011. MBA core course on human resource management and organizational behavior issues. Course head, 1995-1998, 2000-2006, 2008-2011.

MBAExec Management 621/653, <u>Managing People at Work/Field Application Project</u>, Summer 2000-2010 in Philadelphia; Summer 2007-2012 in San Francisco.

Management 391, The Economic and Financial Crisis, Spring and Fall 2009.

Management 918. <u>Perspectives on Human Resources and Industrial Relations</u>. Ph.D. course, Spring 2000.

Management 104, <u>Human Resource Management / Industrial Relations</u>, Spring 1991, 1992, 1993, and 1995. Undergraduate course focused on labor market issues and comparative employment systems.

Management 899, Independent Study with MBA or MBAExec students (multiple times).

Executive Education

Academic Director, Hyundai Motor Group Custom Program, 2013.

Academic Director, Toyota Executive Development Program, 1999-2008.

Academic Director, IMVP/Wharton Global Automotive Program, 2005.

International Forum, Wharton Executive Education, Philadelphia and Kyoto, Japan, 1995, 1996, 1998, 1999, 2000, 2001.

IBM Strategy and Transformation Program, 2011.

Glaxo Smith Kline Transformational Leadership for Executives Program, 2009-2010; 2010-2011.

Tyco Electronics, 2009.

Drexel Human Capital Leadership Program, 2008-2009.

AXA Executive Leadership Council, 2008.

DaimlerChrysler Executive Development Program, 2006-2007.

Implementing Strategy, 2006, 2008.

Securities Industry Branch Management Leadership Institute, 1998-2007.

Managing the Workplace. Wharton Direct, 1999-2000.

Essentials of Management, 1997-1999.

Executive Development Program (EDP) and Insurance EDP, 1997-1998.

2. Courses Created/Developed

Management 623, High Performance Work Systems, MBA elective, 1996-1997.

Management 890/OPIM 890: Global Supply Chain Management in Japan, Global Modular Course, 2013 (developed with Prof. Morris Cohen).

3. Cases Written

"Dynamic Capability Development Through Human Capital Upgrading at Infosys Technologies," with Joydeep Chatterjee, Wharton Case #63 (Part A) and #87 (Part B).

G. PROFESSIONAL SERVICE ACTIVITIES

1. Wharton School Committees

Academic Freedom and Responsibility Committee, 1999-2000, 2003-2005

MBA Core Implementation Committee, 2000-2003; 2006-2007

MBA Executive Committee, 2001-2002

MBA Curriculum Committee, 1997-1998, 2000-2001, 2002-2003

MBARC Response Team, Management Department, 2010-2011

Financial Institutions Review Committee, 2002

Management Department Chair Search Committee, 2010

Management Department Faculty Survey Follow-up Committee, Chair, 2008-2010

Management Department Space Committee, 2002-2003

Management Department Quinquennial Review, 1999

Management Department Graduate Curriculum Committee, 1992-1995

Undergraduate Curriculum Committee, 2010-2011

2. Doctoral Dissertation Committees

Joan Allatta, Elizabeth Craig, Jaewon Kim, Frits Pil, Clint Chadwick, Sherry Bushnell, Management Department.

Kannan Sethuraman, Leonora Fuxman, Kamalini Ramdas, Operations and Information Management Department.

3. Refereeing of articles, books, or proposals for:

Academy of Management Journal

Academy of Management Review

Administrative Sciences Quarterly

American Sociological Review

British Journal of Industrial Relations

California Management Review

Cambridge Journal of Economics

Cornell University Press

Human Relations

IEEE Transactions in Engineering Management

Industrial and Corporate Change

Industrial and Labor Relations Review

Industrial Relations

Journal of International Business Studies

Journal of Operations Management

Management Science

Management and Organization Review

Manufacturing and Service Operations Management

The MIT Press

National Science Foundation

Oxford University Press

Organization Science

Organization Studies

Production and Operations Management

Research Policy

Sloan Foundation

Sloan Management Review

Stanford University Press

Strategic Management Journal

4. Professional Affiliations and Memberships

Academy of International Business

Academy of Management

Industry Studies Association

Institute for Operations Research and Management Science (INFORMS)

Labor and Employment Research Association

Strategic Management Society

H. GRANTS, HONORS, AND AWARDS

1. University-related

MBAExec Excellence in Teaching Award, Core Curriculum (San Francisco), Wharton School, University of Pennsylvania, 2012.

MBA Excellence in Teaching Award, Core Curriculum, Wharton School, University of Pennsylvania, 1996, 1997, 1998, 2000.

Miller-Sherred Teaching Award for teaching in the MBA core curriculum, Wharton School, University of Pennsylvania, 1994.

Outstanding Teaching Award at the undergraduate level, Wharton School, University of Pennsylvania, 1992.

2. Professional

Board of Directors, Industry Studies Association, 2008-present.

Automotive Experts Group, Federal Reserve Bank of Chicago, 2010-present.

Industry Agenda Council (Automotive), World Economic Forum, 2010-2012.

Advisor to Automotive Governors (CEO group), World Economic Forum, 2004-2007.

Outstanding Young Scholar Award, Industrial Relations Research Association, 1997.

Research grants from International Motor Vehicle Program, MIT, 1991-2009.

Zenon and Clotilde Zannetos Ph.D. Thesis Prize, Sloan School of Management, MIT, 1991.

<u>International Professional Practice Research Award</u>, American Society of Training and Development (with John F. Krafcik), 1989.

<u>Harman Fellowship</u>, Program on Public Policy, Technology, and Human Development, Kennedy School of Government, Harvard University.

Research on the impact of information technology on work organization, job design, skill levels and the influence of system design. 1983-1985.

<u>Shaw Fellowship</u>, Harvard University. Studied government support for musical arts in 6 European countries. 1977-1978.

I. PREVIOUS EMPLOYMENT

Research Assistant, Harvard Business School. Worked with Profs. Robert Hayes and Kim Clark on inter-plant productivity comparisons in three manufacturing companies. 1982-1983.

Director of Outreach Services, Coastal Economic Development, Bath, ME. 1979-1982.

Country of citizenship: United States

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