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A. BIOGRAPHICAL INFORMATION

EDUCATION

Ph.D. Harvard University, Public Policy, 1995
M.P.P. Harvard University, Public Policy, 1986
B.S. University of Rochester, Optics (with high distinction), 1984

Dissertation: The Evolution of European Technological Cooperation: The Institutional Economics of Collaborative R&D.

Advisors: Lewis Branscomb, Harvey Brooks, Bennett Harrison & F.M. Scherer

Master's thesis, "International Participation in the Space Station Program: A Management Framework," honored as one of the school's top three of 1986.

CURRENT POSITION

LEHIGH UNIVERSITY

Bethlehem, PA

College of Business & Economics, Department of Economics, 1992-date.
Executive Director Martindale Center for the Study of Private Enterprise and Arthur F. Searing Professor of Economics. Director, Microfinance Program. Research & teaching areas: Policies and Economics of Technological Innovation, Managerial Economics, New Product Development and Technology Entrepreneurship, and Innovation and Technology in Microfinance. Distance learning. Founding Executive Director Baker Institute for Entrepreneurship, Creativity and Innovation 2010-2015. Led creation of university-wide undergraduate entrepreneurship program, now regularly ranked in top 25 nationally by *Entrepreneurship Magazine* and *Princeton Review* and most recently #12 by *Bloomberg BusinessWeek*. As Faculty Fellow to the Provost, 1999-2002, responsible for the *Ventures* initiative, promoting inquiry-based, active learning curriculum across all four of Lehigh's colleges. Co-founder & program leadership for Integrated Product Development (IPD) Program. IPD has been featured in *US News & World Report's America's Best Colleges*, the *Chronicle of Higher Education*, the *Washington Post*, ABC News, Fox News, *BusinessWeek TV*, multiple times in the *New York Times* & was national winner of the ASME curriculum innovation award. More than \$17.1 million in external research, contract, and training grant funding.

EXPERIENCE

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, Belgium

Directorate-General for Science, Research & Development, Research Evaluation Unit.
Compared management, evaluation & policy development in European & American cooperative science & technology programs, Feb.-Aug. 1987.

U.S. GENERAL ACCOUNTING OFFICE Washington, DC

Program Evaluation & Methodology Division. Analyzed the statistical methodology of national cancer survival data. Prepared a legislative history of the National Cancer Program. Interviewed cancer experts & health program administrators. Authored section of GAO report, *Cancer Patient Survival: What Progress Has Been Made?* (GAO/PEMD-87-13), summer 1985.

ARTHUR D. LITTLE, INC. Cambridge, MA

Economics Development & Management Division. Evaluated the economic & technical feasibility of Research & Development Limited Partnerships in Integrated Optics, spring 1985.

EASTMAN KODAK CO. Rochester, NY

Optical Design & Manufacturing Engineering Departments. Designed & tested optical & opto-electronic test equipment. Programmed extensively in FORTRAN, CODE V, & BASIC. Designed lenses with optical design software. Wrote computer-aided design & analysis programs incorporating graphics software. Adopted design programs to drive computer automated prototype machining. Conducted quality control statistical analysis of production data, 1982-84.

HARVARD UNIVERSITY Cambridge, MA

Research Assistant, Professors Maryellen Kelley & Harvey Brooks. Survey design & econometric analysis of a questionnaire sent to more than 1300 manufacturing plants, for their NSF-funded project, "Inter-Firm Linkages and the Diffusion of Process Innovations," & their book *The State of Computerized Automation in US Manufacturing*, 1988-91.

Research Assistant, Professors Lewis Branscomb, Ashton Carter & Harvey Brooks, Dual-Use Technology Project, 1986-89.

OTHER TEACHING EXPERIENCE

Instructor, Microeconomics, Harvard University, Summer Program for Public Administrators, 1988-91. Economics Coordinator in 1990 & 1991. Hired & oversaw ten other instructors. Redesigned the economics & mathematics curricula.

Seminar Leader, The Policy & Politics of the US Space Program, Institute of Politics, Harvard University, spring 1988.

Head Teaching Fellow, Harvard University Kennedy School of Government
Microeconomics & Public Policy, fall 1989 & fall 1990; Applied Microeconomics, fall 1988;
Data Analysis for Managers, spring 1989, spring 1990 & fall 1990.

Teaching Fellow, Harvard University Kennedy School of Government
Data Analysis for Public Managers, spring 1988; Applied Microeconomics, fall 1986 & fall 1987.

Teaching Assistant, Harvard University Kennedy School of Government
Public Management, spring 1986; Statistics, fall 1985.

Teaching Assistant, University of Rochester
Calculus, fall 1983 & spring 1984.

AREAS OF SPECIALIZATION

Economics of Innovation; Technology Entrepreneurship; Technology Management;
Technology & Innovation Public Policy; Defense-related Industries;
Survey Design;
Technology and Innovation in Microfinance

B. PUBLICATIONS

BOOKS

1. *Introduction to Microfinance*. Imperial College Press/World Scientific. 2018.

RESEARCH MONOGRAPHS

2. *Direct and Spillover Effects of ATP-Funded Photonics Technologies*, with Theodore W. Schlie, NIST GCR06-893, Economic Assessment Office, Advanced Technology Program, National Institute of Standards and Technology, Technology Administration, U.S. Department of Commerce, Washington DC, December 2006.
3. *The Defense Industrial Network*, with Maryellen R. Kelley, Office of Technology Assessment, US Congress, August, 1992.

BOOKS & VOLUMES EDITED

4. *The Future of Microfinance*, Ira W. Lieberman, Paul DiLeo, Todd A. Watkins, and Anna Kanze, eds., Brookings Institution Press, 2020.
5. *Moving Beyond Storytelling: Emerging Research in Microfinance*, Todd A. Watkins and Karen Hicks, eds., Emerald Press, 2009.
6. *On the Brink of Brexit*, Vol. 36 of the journal *Perspectives on Business and Economics*, Todd A. Watkins and Nancy B. Watkins, eds., 2018.
7. *Post-crash Iceland: Opportunity, Risk, and Reform.*, Vol. 29 of the journal *Perspectives on Business and Economics*, Todd A. Watkins and Nancy B. Watkins, eds., 2011.
8. *Contradictions and Challenges in 21st Century Italy*, Vol. 23 of the journal *Perspectives on Business and Economics*, Todd A. Watkins and Nancy B. Watkins, eds., 2003.

CHAPTERS IN BOOKS

9. “Microfinance Industry Concentration and the Role of Large Scale and Profitable MFIs,” in *The Future of Microfinance*, Ira W. Lieberman, Paul DiLeo, Todd A. Watkins, and Anna Kanze, eds., Brookings Institution Press, 2020.
10. “Lehigh University’s Integrated Product Development Program and Lehigh’s Baker Institute for Entrepreneurship, Creativity and Innovation”, with John B. Och & Lisa Getzler-Linn, *Real World Engineering Education*, National Academy of Engineering, Washington DC, 2012.
11. “A Framework for Innovation Roadmapping in Microfinance Information Systems,” in *Moving Beyond Storytelling: Emerging Research in Microfinance*, Todd A. Watkins and Karen Hicks, eds., Emerald Press, 2009.
12. “Innovation Facilitators and Accelerators for Aeronautics,” principal author (unattributed), in *Aeronautics Innovation: NASA’s Challenges and Opportunities*, Stephen A. Merrill, ed., Committee on Innovation Models for Aerospace Technologies, Board on Science, Technology, and Economic Policy, National Research Council of The National Academies, The National Academies Press, Washington, D.C., 2006.
13. “Extending Case Study Methodologies for Technology Policy Evaluation,” *The Advanced Technology Program: Assessing Outcomes*, Charles Wessner, ed., National Academy of Sciences, National Academy Press, Washington D.C, 2001.

14. "The Effects of Commercial Offsets on Aerospace Subcontractors," in *Status Report of the Presidential Commission on Offsets in International Trade*, Executive Office of the President, Washington, DC, January 2001.
15. "Regional Economic Development Practicum," with Thomas J Hyclak, in *After the Votes Are Counted: A Post-Election Guide to Maintaining College Student Civic Engagement*, Michael Gregory ed., Campus Compact, Brown University, Providence RI, 2001.
16. "Dual-Use Supplier Management and Strategic International Sourcing in Aircraft Manufacturing," in *Trends and Challenges in Aerospace Offsets*, Charles Wessner, ed., National Academy of Sciences, National Academy Press, Washington D.C., 1999.
17. "Learning Across Functional Silos: Lehigh University's Integrated Product Development Program," with John B. Ochs, Berrisford W. Boothe & Heather Beam, in Richard G. Milter, John E. Stinson & Wim H. Gijselaers, eds., *Educational Innovation in Economics and Business III: Innovative Practices in Business Education*, Kluwar Academic Publishers, 1998.
18. "Are Defense and Non-Defense Manufacturing Industries Really all That Different?", with Maryellen R. Kelley, in Gerald I. Susman & Sean O'Keefe, eds., *The Defense Industry in the Post-Cold War Era: Corporate Strategies and Public Policy Perspectives*, Pergamon, 1998.
19. "Applied Semiconductor Research in Europe," in William Keller et al. (eds.), *Global Access to Applied Research: Implications for the Semiconductor Industry*, Center for Trade & Commercial Diplomacy, Monterey Institute of International Studies, Monterey CA, March 1997.

ARTICLES IN REFEREEED JOURNALS

20. "The Effect of the Global Financial Crisis on the Cost Inefficiencies of the Double Bottom Line Goal of Microfinance Institutions," with Amy Eremionkhale. *International Journal of Business & Management Studies* (IJBMS) 2(2) March 2021.
21. "Microfinance and SDG 7: Financial Impact Channels for Mitigating Energy Poverty," with Karli Manko. *Development in Practice*, January 2021.
22. "Evidence of Economically Sustainable Village-Scale Microenterprises for Arsenic Remediation in Developing Countries," Michael S. German, Todd A. Watkins, Minhaj Chowdhury, Prasun Chatterjee, Mizan Rahman, Hul Seingheng, and Arup K. SenGupta. *Environmental Science & Technology* 53(3) 2019.
23. "Why are Labor Quit Rates Lower among Defense Contractors?" with Thomas Hyclak. *Industrial Relations* 50(4) 2011.
24. "Absorptive Capacity and R&D Tax Policy: Are In-house and External Contract R&D Substitutes or Complements?" with Lolita Anna Paff. *Small Business Economics* 33(2) 2009.
25. "What is the After-Tax Price of R&D? An Inter-State Comparison," with Lolita Paff. *Fiscal Studies* 30(1) 2009.
26. "Can Students in Technology Entrepreneurship Courses Help Foster Start-ups by the Unemployed?" with M. Jean Russo and John B. Ochs. *Journal of Small Business and Enterprise Development* 15(2) 2008.
27. "Do Workforce and Organizational Practices Explain the Manufacturing Technology Implementation Advantage of Small Defense Contractors over Non-Defense Firms?" *Defence and Peace Economics* 18(4) 2007.

28. "Manufacturing Scale, Lot Sizes and Product Complexity in Defense and Commercial Manufacturing," with Maryellen R. Kelley. *Defence and Peace Economics* 12(3) 2001.
29. "Creating a Truly Multidisciplinary Entrepreneurial Educational Environment," with John B. Ochs & Berrisford W. Boothe. *Journal of Engineering Education* 90(4) 2001.
30. ---, reprinted in P. Vilarinho, ed., *Leading International Practices in Engineering Entrepreneurship Education*. Lisbon: COTEC, 2006.
31. ---, also in *Proceedings of the 2001 American Society for Engineering Education Annual Conference and Exposition*. Revised version of paper above.
32. "In From the Cold: Prospects for Conversion of the Defense Industrial Base," with Maryellen R. Kelley. *Science* 268, No. 5210, 28 April, 1995.
33. ----, reprinted in: Tarek Khalil, ed., *Management of Technology*, McGraw Hill, 2000.
34. "A Technological Communications Costs Model of R&D Consortia as Public Policy." *Research Policy* 20, April 1991.
35. "Beyond Guns and Butter: Managing Dual-Use Technologies." *Technovation: The International Journal of Technological Innovation and Entrepreneurship* 10(6) 1990.
36. ----, reprinted in: *IEEE Engineering Management Review* 19, Summer 1991.
37. "A Management Framework for the Space Station Program." *Governance*, Winter 1987. Article won the Lucius N. Littauer Prize for Distinguished Writing in Public Policy.
38. "From the Ashes of ISTC: U.S. Foreign Technical Assistance Since 1979." *Governance*, Summer 1986. [Review]

INVITED AND OTHER EDITED JOURNAL PUBLICATIONS

39. "Breakthrough Technology or Breakthrough Solution: What Are We Really After?" with Arup K. SenGupta, Michael German, Prasun Chatterjee, Anil Shaw, Sudipta Sarkar, Mizan Rahman, and Minhaj Chowdhury, *Environmental Science & Technology* 51(5), 2017.
40. "Glide Path to Irrelevance: Federal Funding for Aeronautics," with Alan Schriesheim and Stephen Merrill, *Issues in Science and Technology* 23(1) 69-78, Fall 2006. [Invited]
41. "The Myth of the Specialized Military Contractor," with Maryellen R. Kelley, *Technology Review* 98(3), April, 1995. [Invited]
42. "The Myth of the Defense Ghetto," Invited response to Bruce D. Berkowitz's "Why Defense Reinvestment Won't Work," *Technology Review*, 97(7), October 1994. [Invited]

PUBLISHED REPORTS & CONFERENCE PROCEEDINGS

43. "Microfinance: Revolution or Footnote? The Future of Microfinance Over the Next Ten Years." White paper. With Ira Lieberman, Paul DiLeo and Anna Kanze. San Jose, Costa Rica: Calmeadow. September 2017. [Invited]
44. "Microfinanzas: ¿Revolución o Nota al Pie? El futuro de las microfinanzas durante los próximos diez años." With Ira Lieberman, Paul DiLeo and Anna Kanze. Translation of above, for the IX Central American and Caribbean Microfinance Conference, REDCAMIF (Central American Microfinance Network), San Salvador, El Salvador. August 22-24, 2018. [Invited]

45. "From Lab and SocEnt Startup to Impact on 200,000 Lives: A Sustainable Microenterprise Model for Village Scale Arsenic Removal from Drinking Water." With Michael German and Arup K. SenGupta, Hadley, MA: Open 2016 Conference Proceedings: VentureWell, Portland, March 2016 [Refereed]
46. "Absorptive Capacity and R&D Tax Policy: Are In-house and External Contract R&D Substitutes or Complements?" with Lolita Paff. Working Paper No. 116, National University of Ireland, Galway. May 2007. Revised version published in *Small Business Economics*, 2009.
47. "Why are Labor Quit Rates Lower among Defense Contractors," with Thomas Hyclak.. Working Paper No. 121, National University of Ireland, Galway. April 2007. Revised version accepted for publication in *Industrial Relations*.
48. Abstract and poster: "A Dream Model of Technical Entrepreneurship Education: Envisioning an Ideal Educational Environment for the Next Generation of Global Business Creators," with John B. Ochs.; Gerard Lennon and Lisa Getzler-Linn. Abstract and poster. *Proceedings of the 2007 Annual Conference of the American Society for Engineering Education*, Honolulu, Hawaii, June 24-27, 2007. [Refereed]
49. Abstract: "Intellectual Property Agreements for Entrepreneurial and Industry-Sponsored Undergraduate Projects," with Lisa Getzler-Linn, Proceedings of the *National Collegiate and Innovators Alliance Annual Conference*, Tampa, March 2007. [Refereed]
50. "A Comprehensive Model for Integrating Entrepreneurship Education and Capstone Projects while Meeting ABET Requirements," with John B. Ochs, Gerard P Lennon and Graham Mitchell, *Proceedings of the 2006 American Society for Engineering Education Annual Conference & Exposition*, Chicago, June 2006. [Refereed]
51. "Program and Student Performance Assessment in Team-Based Project Courses with Focus on Technical Entrepreneurship and Product Development," with Lisa Getzler-Linn and John B. Ochs. US Association for Small Business and Entrepreneurship/Small Business Institute, *The Changing Entrepreneurial Landscape: USASBE/SBI 2006 Joint Conference Proceedings*, Leslie A. Toombs, ed., Tucson, Arizona, January 12-15, 2006.
52. "On the Existence of Gentrification in Southside Bethlehem as Expressed in Rents," with M. Garrett Roth. *Economic Notebook*, Martindale Center for the Study of Private Enterprise, Lehigh University, August 2005. [Invited]
53. "Integrating Engineering, Design Arts and Entrepreneurship Education through New Product Development Projects" (paper and poster), with John B. Ochs and Anna Chupa. *Proceedings of the PACE 2005 Annual Forum*, Mexico City, July 27-29, 2005. [Invited]
54. "Do Workforce and Organizational Practices Explain the Manufacturing Technology Implementation Advantage of Small Defense Contractors over Non-Defense Firms?" *Proceedings of the Pennsylvania Economic Association 2005 Conference*, Millersville University, June 2-4, 2005. Revised version in *Defence and Peace Economics*, 2007. [Refereed]
55. "Integration of Lehigh's Entrepreneurship Minor into the Undergraduate Engineering Curricula," with John B. Ochs and Graham Mitchell. *Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition*, Portland, Oregon, June 2005. [Refereed]
56. Abstract: "Do Workforce and Organizational Practices Explain the Manufacturing Technology Implementation Advantage of Small Defense Contractors over Non-Defense Firms?" *2004 Hawaii International Conference on Business*, Proceedings, East West Council for Education, Honolulu, and the Asia-Pacific Research Institute, Peking University, 2004. [Refereed]

57. "Lehigh's Entrepreneurial Network (LEN) of Alumni: Resources for Student Entrepreneurs," with John B. Ochs. *Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition*, Salt Lake City, Utah, June 2004. [Refereed]
58. "A Case Study in Assessing Team-Based Project Courses: Lehigh University's IPD Program," with John B. Ochs, Drew M. Snyder, Jean Russo and Lisa-Getzler-Linn. *Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition*, Salt Lake City, Utah, June 2004. [Refereed]
59. Abstract: "Lehigh's Interdisciplinary Capstone Courses in Integrated Product Development," with John B. Ochs, *2004 Annual Conference of the American Society for Engineering Education*, Liberal Education Division, Salt Lake City, UT, June 2004. [Refereed]
60. "Implementation, Evaluation and Lessons Learned from (Very) Cross-Disciplinary Technology Entrepreneurship Programs at Lehigh University," with John B. Ochs, *AASCB Associate Deans Conference Proceedings*, Orlando, FL, December 7-9, 2003. [Invited]
61. *Management of Technology in Europe 2003: Comparing Strategies and Tools in 17 High Technology Organizations*, with Dominic Busher, et al., Todd A. Watkins, contributing ed., National Technological University, Minneapolis, MN, May 2003. [Invited]
62. "Problems Typical of the Case-Study Approach to Technology Impact Assessment and Techniques of Overcoming Them," in Rosalie Ruegg, ed., *Benchmarking Evaluation of Public Science And Technology Programs In The United States, Canada, Israel, And Finland*, Proceedings, Tekes—National Technology Agency Of Finland, Embassy Of Finland, Washington DC, September 25, 2002, TEKES Reports of R&D Impacts, January 15, 2003. [Invited]
63. "Leveraging What Freshmen Don't Know: Product Development in an Integrated Business and Engineering Freshman Workshop," with John B. Ochs and Drew M. Snyder. *Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition*, 2003. [Refereed]
64. "Lessons Learned in Building Cross-Disciplinary Partnerships in Entrepreneurship Education through Integrated Product Development (IPD)," with John B. Ochs and Drew M. Snyder. *Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition*, 2003. [Refereed]
65. "Cultivating an Entrepreneurial Spirit through Cross-Disciplinary Student Teams in Freshmen Projects Course," with John B. Ochs & Barrisford W. Boothe. *Proceedings of the 2002 American Society for Engineering Education Annual Conference & Exposition*. [Refereed]
66. Abstract: "Attracting Under Represented Students to Engineering through Career Awareness Programs," with John B. Ochs & Barrisford W. Boothe. For the *2002 American Society of Engineering Educators (ASEE) Annual Conference & Exposition*, Montreal, June 16-19, 2002. [Refereed]
67. *Lehigh Valley Technology Network - Survey Results*. Lehigh Valley Economic Development Corp., Bethlehem, PA, April 2002. <http://www.lvtechnet.com/results.pdf>. [Invited]
68. "Diffusion Pathways for ATP-Funded Photonics Technologies," with Theodore W. Schlie. *Highlights from ATP's Economic Studies*, ATP Factsheet 1.F2, Economic Assessment Office, Advanced Technology Program, National Institute of Standards and Technology, Technology Administration, U.S. Department of Commerce, Washington DC, September 2001.

69. *American Practitioners' Views of Technology Management in European High Technology Organizations*. Todd A. Watkins, contributing ed., National Technological University, Fort Collins, CO, May 2001. [Invited]
70. "Creating a Truly Multidisciplinary Entrepreneurial Educational Environment," with John B. Ochs & Berrisford W. Boothe. *Proceedings of the 2001 Annual Meeting of the National Collegiate Inventors and Innovators Alliance*, Washington DC, March 6-9, 2001. Revised version published in *Journal of Engineering Education* 90(4), 2001. [Refereed]
71. Abstract: "Obsidian Suspension Systems Cyclops Mountain Bike Suspension." In *Creative Connections: Innovation & Entrepreneurship in Higher Education*, National Collegiate Inventors & Innovators Alliance Annual Conference, Smithsonian Institution, Washington DC, March 1999. [Refereed]
72. "Integrating Design Arts, Engineering and Business Curricula through Multidisciplinary Product Design Projects," with John B. Ochs & Berrisford W. Boothe, *Second International Workshop on Integrated Product Development*, Magdeburg/Barleben Germany, Sept 17-18, 1998. [Invited]
73. "Dual-Use Supplier Management and Strategic International Sourcing in Aircraft Manufacturing," MIT Lean Aircraft Initiative Case Study, revised October 1997. [Substantially revised version later published in National Academies book *Trends and Challenges in Aerospace Offsets*, 1999].
74. Abstract: "Learning Across Functional Silos: Lehigh University's Integrated Product Development Program," with John B. Ochs, Berrisford W. Boothe & Heather Beam, *Program Book of Abstracts: Third EDINEB Conference*, Educational Innovation in Economics and Business: Innovative Practices in Business Education, Orlando, FL, December 4-7, 1996. [Refereed]
75. *Applied Silicon Research and Semiconductor Research Policies in Europe*, Comparative Country Case Study for the Impact of Foreign Research Program, Center for Trade & Commercial Diplomacy, Monterey Institute of International Studies, November 1996. [Invited]
76. "Lehigh University's Educational Program in Integrated Product Development (IPD)," with John B. Ochs & Berrisford W. Boothe, *Proceedings of the 1996 ABET Annual Meeting*, San Diego, October 31-November 1, 1996. [Refereed]
77. ----, reprinted in *Innovations in Mechanical Engineering Curricula for the 1990s: The 1996 Curriculum Innovation Awards*, American Society of Mechanical Engineers, New York, 1996.
78. ----, also in: *UPCADEM '96*, reviewed proceedings of the conference on University Programs in Computer Aided Engineering, Design & Manufacturing, University of Virginia, Charlottesville, June 27-29, 1996. [Refereed]
79. "Squeezing the US Aerospace Supply Base: Global Sourcing and Lean Supplier Management," in *Next Generation Manufacturing: Agility, Intelligence, Process Reengineering*, Proceedings of the 10th Conference With Industry, Lehigh University Center for Manufacturing Systems Engineering, Bethlehem, PA, April 22-3, 1996. [Invited]
80. "In from the Cold: Prospects for Conversion of the Defense Industrial Base," with Maryellen R. Kelley, Lehigh University, Martindale Center for the Study of Private Enterprise, Discussion Paper No. 6, 1994. [Substantially reduced & revised version later published in *Science*, 1995]
81. "In from the Cold: Prospects for Conversion of the Defense Industrial Base," with Maryellen R. Kelley, Massachusetts Institute of Technology, Industrial Performance Center, Working Paper

94-0010WP, December 1994. [Substantially revised version of above, & second substantially reduced & revised version published in *Science*, 1995]

82. "Collaborative R&D in Theory and in the European Community," in *Linking Innovation Policy and Innovation Management*, Proceedings of the International Conference for Rising Scholars & Practitioners in Science & Technology Policy," East-West Center, University of Hawaii, Honolulu, January 7-9, 1993, MIT Japan Program, Massachusetts Institute of Technology. [Refereed]
83. Abstract: "Fostering Cooperation: The Role of Esprit in Shaping Industrial Behavior," *European Community Studies Association: Conference Abstracts*, George Mason University, May 22-24, 1991. [Refereed]
84. "Military and Civilian Technology: A Changing Relationship," Harvard University, Science, Technology & Public Policy Program, Workshop Report, November 1989.
85. "Dual-Use Technologies: Diffusion Structures and International Policy Convergence," Harvard University, Science, Technology, and Public Policy Program, Discussion Paper 89-04.
86. *Cancer Patient Survival: What Progress Has Been Made?* (contributing author), GAO/PEMD-87-13, Program Methodology and Evaluation Division, United States General Accounting Office, Washington DC, 1987. [Externally Reviewed]

PUBLISHED NOTES, ETC.

87. "COVID-19 Lehigh Valley Arts & Culture Early Impact Survey, Phase II" with Sean King and David Mickenberg, survey results infographic, Cultural Coalition of Allentown, May 2020. [Invited]
88. "COVID-19 Lehigh Valley Arts & Culture Early Impact Survey," with Sean King and David Mickenberg, survey results infographic, Cultural Coalition of Allentown, April 2020. [Invited]
89. "The Creative Economy of the Lehigh Valley" with Sean King and David Mickenberg, Cultural Coalition of Allenwtown, Oct. 2019.
90. "Gaining Much-Needed Perspectives on Brexit," *IILUminate-Lehigh Business Blog*, College of Business, Lehigh University, June 2019. [Invited]
91. "Might Microfinance Disempower Women?" *IILUminate-Lehigh Business Blog*, College of Business and Economics, Lehigh University, Feb. 25, 2018. [Invited]
92. "Microcredit Really Does Help the Poor—Just in Modest Ways," *IILUminate-Lehigh Business Blog* College of Business and Economics, Lehigh University, June 12, 2017. [Invited]
93. "Fintech in Microfinance: In Search of the High-Tech High-Touch Unicorn?" with Paul DiLeo, Anna Kanze, and Ira Lieberman, Accion International, *Center for Financial Inclusion Blog*, May 11, 2017. [Invited]
94. "Can MFIs Deliver What Poor People Need?" with Ira Lieberman and Anna Kanze, Accion International, *Center for Financial Inclusion Blog*, May 4, 2017. [Invited]
95. "Time to Ditch Impact Investing's Unproductive Self-Analysis," with Paul DiLeo and Anna Kanze, Accion International, *Center for Financial Inclusion Blog*, April 27, 2017. [Invited]

96. "Microfinance Is Dead; Long Live Microfinance!", with Paul DiLeo and Anna Kanze, Accion International, *Center for Financial Inclusion Blog*, April 20, 2017. [Invited]
97. "Cross-Cultural Skills More Critical Now," *Times of India, Education Times*, December 26, 2016.
98. "A North American Vagrant Lands in Galway," *Cairde Eanlaith Na Gaillimhe (Birdwatch Galway) Quarterly Newsletter 57/07*, May 2007. [Invited]
99. "NASA Needs Funds," Letters, *USA Today*, October 4, 2006.
100. "A Seven Step Program to Teaching Creatively," *Lehigh Lab Notes 3(1)*, February 2006. [Invited]
101. "Think of How US Could Spend \$118 Billion Allotted to Space," Letters, *Boston Globe*, July 1, 1991.
102. "War of Games," Letters, *Financial Times*, January 30, 1991.
103. "America's Space Program," *National Defense*, Vol. 74, March 1989.
104. "Oil Import Tax," Letters, *Science*, January 30, 1987.
105. "Working Together to Soar Far Into Space," (Opinion) *The Christian Science Monitor*, Vol. 79, No. 12, December 11, 1986.
106. Above republished as "Station Should Not Be NASA's Charge," *The Palm Beach Post*, December 23, 1986.
107. "1985 Fellow Report." *The Bent of Tau Beta Pi 76(3)*, Summer 1985. [Invited]
108. "Jasmine" (fiction). *Logos 12(6)*, April 2, 1984
109. "Engineering Code of Ethics." *Arcanii Imperii, Journal of Philosophy & Politics 2(3)*, March 1984. [Invited]
110. "Winter is Like a Perhaps Fist" (poetry). *Logos 10(4)* Summer 1982.
111. Various feature articles and music reviews. *Campus Times*, University of Rochester Student Daily, Sept. 1980-April 1982. [Invited]

WORKS IN PROGRESS

"Microfinance and SDG 4: Financial Impact Channels for Expanding Access to Education," with Shannon Carroll.

"What Next for the Cultural Coalition? Pandemic as a turning point in reimagining regional community arts and culture governance," with Sean King, Roland Kushner, and David Mickenberg. For the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA) Conference, *From Climate Change to Social Justice: How Citizens are Re-Shaping Nonprofits and Philanthropy in an Age of Disruption and Transition*, November 12-14, 2020.

C. HONORS & AWARDS

National winner, Award for Excellence in Technology Commercialization, University Economic Development Association, 2010.

Arthur F. Searing Professor of Economics, endowed chair, Lehigh University, 2009-2015.

Outstanding Instructor Award, National Technological University, 2002.

Faculty Fellow to the Provost, Lehigh University, 1999-2002.

Outstanding Instructor Award, National Technological University, 1999, 2000 and again in 2001.
 Nominated by Lehigh for national 1999 Thomas Ehrlich Faculty Award for Service-Learning,
 Campus Compact.
 Named to "Class of 1961" endowed professorship, Lehigh University, 1998.
 Alfred Noble Robinson Award, Lehigh University, 1997, for "outstanding performance in the service
 of the University and unusual promise of professional achievement."
 Kane Faculty Fellow, Lehigh University, 1996-7.
 National Winner, 1996 ASME Curriculum Innovation Award, American Society of Mechanical
 Engineers.
 1996 MBA Excellence in Teaching Award, Lehigh University College of Business & Economics.
 Nominated by Lehigh University for 1996 & 1997 Boeing Outstanding Educator Award. Top 6
 finalist in 1997, top 10 in 1996.
 Named one of eight "Rising Scholars and Practitioners" of Science & Technology Policy in the US,
 MIT Japan Science & Technology Program, 1993 [Clayton Christensen was another].
 Research Fellow, Center for Science & International Affairs, Harvard University, 1991-92 & 1986-87.
 Elected Outstanding Teaching Fellow by MPA students, Harvard University Kennedy School of
 Government, 1991.
 Pre-Doctoral Fellow, Science, Technology & Public Policy Program, Harvard, 1989-90.
 Littauer Prize for Distinguished Writing in Public Policy, 1987.
 PAE Prize, Harvard University Kennedy School of Government, Master's thesis honored as one of
 the school's top three, 1986
 Kennedy Fellow, Harvard University Kennedy School of Government, 1985-86.
 Tau Beta Pi Fellow, national award, 1984-85.
 Elected Outstanding Senior Engineering Student, 1984, University of Rochester.
 1984 Dutton Student Life Prize, University of Rochester, for "exemplary contribution to campus life"
 President, Tau Beta Pi, National Engineering Honor Society, 1983-84.
 President, University of Rochester Men's Glee Club, 1983-84.
 Phi Beta Kappa as junior.
 Tau Beta Pi as junior.
 University of Rochester Alumni Regional Scholarship, 1980-1984.
 National Merit Scholarship, 1980-84.
 Ohio All-State Orchestra, violin, 1980.

D. GRANTS & CONTRACTS

TOTAL GRANTS & CONTRACTS: \$17,182,916

COMPETITIVELY AWARDED RESEARCH GRANTS

Title	Source	Amount	Term	Co-PI
1. Desalination and Defluoridation of Contaminated Brackish Water with Innovative Ion Exchange Technology	PA Dept. of Community & Economic Development (PITA XVIII)	\$24,530	7/16-9/17	Arup Sengupta
2. Field Application of Hybrid Anion Exchange (HAIX) Technology to Mitigate Fluoride and Marcellus Wastewater Crisis	PA Dept. of Community & Economic Development (PITA XVII)	23980	1/15-6/16	Arup Sengupta
3. Synergy at Water Interface: Transforming Arsenic and Fluoride Crisis into an Economic Enterprise through Technology Innovation	US Dept. of State Global Innovation Initiative	\$249,897	6/14-5/16	Arup Sengupta

4. Rapid Transformation Of Intellectual Property Into Market-Ready Technology In The Water/Environment Sector	PA Dept. of Community & Economic Development (PITA XV)	\$21,450	1/13-6/14	Arup Sengupta
5. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (LifeServe Innovations SMART-kit)	NCIIA & Lemelson Foundation	\$19,600	2009-10	
6. Partnership for Research in Innovation Commercialization and Entrepreneurship (PRICE)	NSF – Partnerships for Innovation (PFI)	\$600,000	4/05 - 6/08	Florida Tech - lead, USC, Lehigh (Ochs & Watkins), Rice, Rose Hullman, Santa Clara, Worcester Poly
7. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (Ecotech Nanosystems)	NCIIA & Lemelson Foundation	\$19,492	2007-8	
8. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (Orion Security)	NCIIA & Lemelson Foundation	\$16,500	2006-7	
9. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (VorTech)	NCIIA & Lemelson Foundation	\$18,738	2005-6	
10. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (Soda Sentry)	NCIIA & Lemelson Foundation	\$9,241	2005-6	
11. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (FreeFeet)	NCIIA & Lemelson Foundation	\$13,500	4/04-5/06	
12. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (EcoTech Marine: Easy Ionizer)	NCIIA & Lemelson Foundation	\$8,380	7/03-12/04	
13. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (New Design Painting)	NCIIA & Lemelson Foundation	\$13,600	3/03-6/04	
14. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (Glow Friends.)	NCIIA & Lemelson Foundation	\$13,500	3/03-6/04	
15. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (Syrup Out Signal)	NCIIA & Lemelson Foundation	\$13,900	8/02-5/04	
16. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (F.L.I.)	NCIIA & Lemelson Foundation	\$14,220	9/01-8/02	
17. Estimating Net Social Returns to a Case Study Cluster of ATP Photonics & Opto-Electronics Projects	US Department of Commerce	\$145,896	9/99-1/02	Theodore W. Schlie
18. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (Digi-me)	NCIIA & Lemelson Foundation	\$10,000	6/00-6/01	John B. Ochs
19. National Collegiate Inventors & Innovators Alliance Advanced E-Team Support Grant (Obsidian)	NCIIA & Lemelson Foundation	\$20,000	1999	John B. Ochs

20. Summer Research Travel Grant, Program for the Study of Germany & Europe	German Marshall Foundation	\$5,000	1990	
21. Sheldon Traveling Fellowship, for Research in Europe	Harvard University	\$10,000	1987	

NON-COMPETITIVELY AWARDED RESEARCH GRANTS

<u>Title</u>	<u>Source</u>	<u>Amount</u>	<u>Term</u>	<u>Co-PI</u>
22. Conference, "The Future of Work"	International Labour Organization	\$30,000	11/18-4/19	Bill Hunter
23. Workshop, "Microfinance: Revolution or Footnote?"	Calmeadow Foundation	\$30,000	10/16-6/17	Ira Lieberman, Paul DiLeo
24. Expanding Financial Access in Africa: Prospects and Innovations in Microfinance (Conference)	Calmeadow Foundation	\$10,000	2010	Richard Aronson
25. Mobile Phone Credit Scoring Technology for Microfinance	FINTECH Africa	\$24,950	2009	
26. Microfinance Innovation Roadmapping Workshop	IBM	\$35,000	2008	Richard Aronson
27. Demonstration Project Linking Academic Entrepreneurial Courses with Dislocated & New Entrant Workers for Self Employment and New Company Start-ups	US Department of Labor AN11632-01-60	\$556,000	7/01-12/03	John B. Ochs, IPD Program, William Michalerya, Office of Public Affairs
28. Skill & Organizational Complementarities to CAD/CAM Technology Use in Small & Medium Sized Manufacturing Firms	Philadelphia Accelerated Manufacturing Education, Inc. (PhAME)	\$26,003	2002-3	
29. Skill & Organizational Complementarities to CAD/CAM Technology Use in Small & Medium Sized Manufacturing Firms	Small Business Development Center	\$5,000	2002	Antonio Gallardo
30. Applied Silicon Research & Semiconductor Research Policies in Europe	Monterey Institute of International Studies	\$10,000	8/96-2/97	
31. Supplier Development & Management in the Aircraft Industry	MIT Lean Aircraft Initiative	\$85,259	1/94-5/95	
32. Collaborative R&D Management Practices in Esprit- & Eureka-funded Consortia	US Congress, Office of Technology Assessment	\$2,500	1990	

COMPETITIVELY AWARDED TRAINING GRANTS

<u>Title</u>	<u>Source</u>	<u>Amount</u>	<u>Term</u>	<u>Co-PI</u>
33. Lehigh Valley Urban Entrepreneurship Collaborative: Innovative Economic Development Partnerships for the Entrepreneurial Talent Pipeline	US Economic Development Administration	\$275,000	9/12-10/15	
34. School Leadership Initiative- Allentown Principal Leadership Initiative	US Dept. of Education	\$3,000,500	2010-15	George White (PI), F.B. Beachum (CoPI), Watkins & 5 others supporting

35. Linking Entrepreneurially-Oriented Students with Pennsylvania Companies VI	Pennsylvania Infrastructure Technology Alliance (PITA), PA DCED	\$19,999	2009-10	John B. Ochs
36. National Collegiate Inventors & Innovators Alliance BMEidea planning grant (LifeServe Innovations)	Lemelson Foundation	\$500	2009	
37. Linking Entrepreneurially-Oriented Students with Pennsylvania Companies V	Pennsylvania Infrastructure Technology Alliance (PITA), PA DCED	\$45,800	2008-9	John B. Ochs
38. Linking Entrepreneurially-Oriented Students with Pennsylvania Companies IV	Pennsylvania Infrastructure Technology Alliance (PITA), PA DCED	\$67,000	2007-8	John B. Ochs
39. Linking Entrepreneurially-Oriented Students with Pennsylvania Companies III	Pennsylvania Infrastructure Technology Alliance (PITA), PA DCED	\$77,887	2006-7	John B. Ochs
40. International Social Entrepreneurship through Multidisciplinary Student E-Team Projects with Microfinance Partners	NCIIA & Lemelson Foundation	\$36,500	2006-8	Hannah Stewart-Gambino, John B. Ochs
41. Linking Entrepreneurially-Oriented Students with Pennsylvania Companies II	Pennsylvania Infrastructure Technology Alliance (PITA), PA DCED	\$70,000	2005-6	John B. Ochs
42. Infrastructure to Support Linking PA Biotech Companies, Faculty, Students and Alumni through Lehigh's Integrated Product Development (IPD) and Bioengineering Programs	Pennsylvania Infrastructure Technology Alliance (PITA), PA DCED	\$35,000	2004	John B. Ochs, Daniel Ou'Yang
43. Linking Entrepreneurially-Oriented Students & Faculty with Pennsylvania Companies	Pennsylvania Infrastructure Technology Alliance (PITA), PA DCED	\$50,000	2004-5	John B. Ochs
44. Lehigh Entrepreneurs Network	Ewing Marion Kauffman Foundation	\$50,000	2003-4	John B. Ochs
45. Industrial Design Career Awareness	Alcoa Foundation	\$30,000	2001-2	Ochs, Boothe, Buss
46. Industrial Design Career Awareness	Alcoa Foundation	\$40,000	2000-1	John B. Ochs, Berliford Boothe, Sherry Buss
47. Integrating Community & Curriculum: An Evaluation of Lehigh University's Community Research & Policy Service (Lehigh CORPS)	Ford Foundation via Brown University Campus Compact	\$2,500	1999	Thomas J. Hyckak

48. National Collegiate Inventors & Innovators Alliance, E-Team Program Support Grant	NCIIA & Lemelson Foundation	\$7,200	1999	John B. Ochs
49. Industrial Design Career Awareness	Alcoa Foundation	\$30,000	1999-2000	John B. Ochs, Berrisford Boothe, Corporate Relations
50. National Collegiate Inventors & Innovators Alliance, E-Team Program Support Grant	NCIIA & Lemelson Foundation	\$15,000	1998	Ochs & Boothe
51. Integrated Learning Experience Pilot: Lehigh CORPS: Regional Economic Development Practicum	Lehigh University ILE Support Fund	\$10,500	8/97-5/98	Thomas J. Hycklak
52. Integrated Learning Experience Pilot: Theater Design & Business Planning	Lehigh University ILE Support Fund	\$13,600	1997	Jeffrey R. Milet & Ochs

NON-COMPETITIVE TRAINING GRANTS

<u>Title</u>	<u>Source</u>	<u>Amount</u>	<u>Term</u>	<u>Co-PI</u>
53. Martindale Center Operating Gifts FY2020	120 Individual Gifts	\$89,707	2019-2020	Lehigh University Advancement Office
54. Family Business Institute Additional Endowment	Thun Family Foundation	\$199,000	2019	Lehigh University Advancement Office
55. Martindale Center Support Grant FY2020	Martindale Family Foundation	\$75,000	2019-2020	
56. Martindale Center Operating Gifts FY2019	103 Individual Gifts	\$58,258	2018-2019	Lehigh University Advancement Office
57. Lane Journal--Perspectives in Business & Economics	Douglas & Gaye Lane Trust	\$23,807	2018	
58. Martindale Center Support Grant FY2019	Martindale Family Foundation	\$75,000	2018-2019	
59. Martindale Center Operating Gifts FY2018	115 Individual Gifts	\$65,175	2018-2019	Lehigh University Advancement Office
60. Martindale Center Support Grant FY2018	Martindale Family Foundation	\$75,000	2017-2018	
61. Martindale Center Operating Gifts FY2017	>100 Individual Gifts	\$41,291	2016-2017	
62. Family Business Institute Endowment	Thun Family Foundation	\$790,929	2016	Lehigh University Advancement Office
63. Family Business Institute	Thun Family Foundation	\$99,184	2016-2018	Lehigh University Development Office
64. Martindale Center Support Grant FY2017	Martindale Family Foundation	\$100,000	2016-2017	
65. Lane Journal--Perspectives in Business & Economics	Douglas & Gaye Lane Trust	\$24,907	2017	Richard Aronson
66. Martindale Center Operating Gifts FY2016	>100 Individual Gifts	\$84,630	2015-2016	
67. Martindale Center Support Grant FY2016	Martindale Family Foundation	\$100,000	2015-2016	
68. LaunchBayC Accelerator@Mountaintop Pilot	Lehigh U. VP Research Office	\$61,000	2015	Chris Kauzmann, Lisa Getzler
69. Dexter F. and Dorothy H. Baker Legacy Fund for the Baker Institute	Baker Foundation	\$5,000,000	2015-2034	Lehigh University Development Office
70. LaunchBayC Accelerator@Mountaintop Pilot	Lehigh U. VP Research Office	\$45,000	2014	
71. Bioinnovation Workshop Series	Chris Hite	100,000	2013-2105	Lehigh University Development Office
72. Creativity Professor of Practice	Baker Foundation	\$500,000	2012-2017	Lehigh University Development Office

73. Institute for Entrepreneurship, Creativity, and Innovation	Baker Foundation	\$1,250,000	2010-15	Lehigh University Development Office
74. Field Work with Caring for Cambodia	Lehigh U. Office of International Affairs	\$5,906	2009	
75. Student Entrepreneurship Competition (SEC): Support of Student Start-ups.	South Bethlehem Keystone Innovation Zone	\$7,500	2006	John B. Ochs Graham Mitchell
76. IPD Corporate Project Grants for 2006	25 sponsor companies	\$125,000	2006	Pat Costa, John Ochs, IPD Program
77. IPD Corporate Project Grants for 2005	19 sponsor companies	\$100,000	2005	Pat Costa, John B. Ochs, IPD Program
78. IPD Corporate Project Grants for 2004	15 sponsor companies	\$100,000	2004	Pat Costa, John B. Ochs, IPD Program
79. IPD Corporate Project Grants for 2003	15 sponsor companies	\$115,000	2003	Pat Costa, John Ochs, IPD Program
80. GEco 402 Distance Course	National Technological University	Approx. \$12,000	2003	
81. Lehigh University's Integrated Product, Project and Process Development Initiative	US Department of Education	\$350,000	2001-3	John B. Ochs, IPD Program, William Michalerya, Office of Public Affairs
82. GEco 402 & GEco 404 Distance Courses	National Technological University	Approx. \$20,000	2002	
83. Lehigh University's Integrated Product Development Educational Program	US Department of Education	\$370,000	2000-2	John B. Ochs, Berrisford Boothe, IPD Program, William Michalerya, Office of Public Affairs
84. IPD Corporate Project Grants for 2001	9 sponsor companies	\$78,000	2001	Ochs, IPD Program
85. GEco 402 & GEco 404 Distance Courses	National Technological University	Approx. \$20,000	2001	
86. IPD Funding for Start Up Companies	Ben Franklin Technology Partnership	\$30,000	2001	John B. Ochs
87. GEco 402 & GEco 404 Distance Courses	National Technological University	Approx. \$15,000	2000	
88. IPD Funding for Start Up Companies	Ben Franklin Technology Partnership	\$30,000	2000	John B. Ochs
89. IPD Funding for Start Up Companies	Ben Franklin Technology Partnership	\$30,000	1999	John B. Ochs
90. IPD Corporate Project Grants for 1999	11 sponsor companies	\$100,000	1999	Ochs, IPD Program & Lehigh University Development Office
91. General Motors 5-year IPD Grant	GM Foundation	\$400,000	1996-2001	Ochs, Berrisford W. Boothe, Harvey G. Stenger & Developmnet Office
92. GEco 402 & GEco 404 Distance Courses	National Technological University	Approx. \$20,000	1999	

93. IPD Funding for Start Up Companies	Ben Franklin Technology Partnership	\$30,000	1998	Ochs & Boothe
94. IPD Program Grant	Vincent Bell	\$50,000	1998	IPD Program, Development Office
95. IPD Program Grant	Charles Strauch	\$50,000	1998	IPD Program, Development Office
96. IPD Corporate Project Grants for 1998	Knoll, Black & Decker, Chrysler, Lutron, Armstrong, NJ Rivet, Kulicke & Soffa	\$35,000	1998	IPD Program
97. GEco 402 & GEco 404 Distance Courses	National Technological University	Approx. \$20,000	1998	
98. IPD Program Grant	Vincent Bell	\$60,000	1997	Ochs, Boothe, Stenger, Dev. Office
99. IPD Corporate Project Grants for 1997	Lucent, Knoll, Chyrsler, Exxon, Lutron, Armstrong	\$55,000	1997	IPD Program
100. IPD Equipment Donation	Black & Decker	Approx. \$20,000	1997	IPD Program
101. GEco 402 & GEco 404 Distance Courses	National Technological University	Approx. \$20,000	1997	
102. IPD Program Grant	Vincent Bell	\$60,000	1996	Ochs, Boothe, Stenger, Dev. Office
103. IPD Program Development Grant	AT&T Foundation	\$10,000	1996	Ochs, Boothe, Stenger
104. IPD Corporate Project Grants for 1997	Alcoa, Johnson & Johnson, Chrysler	\$23,500	1996	IPD Program

E. EDITORIAL BOARDS FOR SCHOLARLY PUBLICATIONS

Editorial Board, *Technovation, the International Journal of Technological Innovation and Entrepreneurship*, 1996-date.

Editorial Board, *Perspectives on Business and Economics*, 2000-date.

Editorial Review Board, *International Journal of e-Collaboration*, 2004-2017

Editorial Advisory Board, *Advances in E-Collaboration* (AECOB) Book Series, 2007-2009.

Report review panel, National Research Council, SBIR Program Assessment, 2003.

Report review panel, National Research Council, DOD SBIR FastTrack Program Assessment, 2009.

F. SCHOLARLY PRESENTATIONS

* = presenter for multi-authored presentations where Watkins did not present

INVITED PRESENTATIONS

1. “Inclusive Business and Sustainable Financing for Small Businesses.” *Fluid Hangout: An informal strategy conversation for entrepreneurs*, Discussion Series. Leadspace Incubator, Lagos, Nigeria (virtual). May 8, 2020.
2. “Reflections on Contemporary South Africa,” Roundtable panel discussion. With Rachel Buonasora, Jake Cooper, Tino Petros, Jordon Wolman. Zoellner Arts Center, Lehigh University. Jan. 24, 2020.

3. "The Creative Economy & Allentown," keynote presentation. With Sean King. Business & The Arts series, sponsored by City of Allentown and the Downtown Allentown Business Alliance. Allentown Symphony Hall, October 8, 2019.
4. "Study Abroad & Beyond," panel chair & participant. *Decolonizing the Classroom: Africa Network's Biennial Conference*. Smith College, Northampton, MA, Sept. 27-29, 2019.
5. "Field testing the sustainability of a business model and microfinance for capitalizing arsenic and fluoride remediation microenterprises in developing economies," invited talk (presenter). Joint work with Michael S. German & Arup K. SenGupta. Dept. of Accounting, Business, Economics and Finance seminar series. Muhlenberg College. Allentown PA. March 26, 2019.
6. "Integrating Sustainability: Examples from 4+ Curricular Programs," *Sustainability Curriculum Workshop*. Lehigh University, December 10, 2018.
7. "The Family Business Institute at Lehigh: Research, Teaching & Professional Outreach," invited keynote. Lehigh Valley Chapter, Exit Planning Institute, Allentown, PA, Dec. 4, 2018.
8. "Microfinance: Revolution or Footnote? The Future of Microfinance Over the Next Ten Years," with Ira Lieberman, Paul DiLeo, and Anna Kanze (presenter). IX Central American and Caribbean Microfinance Conference, REDCAMIF (Central American Microfinance Network), San Salvador, El Salvador. August 22-24, 2018.
9. "Microfinance: positioning ourselves for the next decade," with Paul DiLeo (presenter), Ira Lieberman and Anna Kanze. *European Microfinance Week*, Luxembourg, November 29-Dec. 1 2017.
10. "Raising the bar on impact expectations: Designing & executing creative inquiry curricula," with Khanjan Mehta, Vincent Munley, Mark Orrs. Panel organizer & presenter. Lehigh University *2017 Symposium on Teaching & Learning*, April 19-20, Bethlehem, PA, 2017.
11. "Building a Strong Ecosystem for the Next Generation of Inventions and Invention-based Businesses." Plenary session panel discussion. National Academy of Inventors 4th Annual Conference, California Institute of Technology, Pasadena, CA, March 18-20, 2015.
12. "What's the Economic Impact of Historic Districts & Landmarks? A Look at the Evidence." Keynote address to the CREW Lehigh Valley workshop *National Historic Landmark District: A Dollars & Sense Achievement*. Bethlehem, PA, April 16, 2013.
13. "Microfinance at 40: Inclusive Financial Services for the Poor." *Mountain Talks*. Lehigh Alumni Association, Bethlehem PA, March 6, 2013.
14. "Lehigh University Tech Startup: ChallTech." *University Startups Virtual Showcase*. National Council on University Tech Transfer, online, January 24, 2013.
15. "University & Economic Development Partnerships for the Student Entrepreneurship Pipeline." PEDA Fall 2012 Conference, Pennsylvania Economic Development Association. Bethlehem, PA Oct 22-24, 2012.
16. "Case Study in Entrepreneurial Talent Development to Drive Innovation." Council on Competitiveness Workshop on *Leveraging the Talent Development Process to Drive Innovation*. Bethlehem PA, Oct 5-6, 2012.

17. "Nonprofit Sustainability: Integrating Mission and Entrepreneurship," invited keynote and facilitated workshop. *Whose Business is the Arts? Public Forum*. Lehigh Valley Arts Council, Lehigh Valley, PA, June 7, 2012.
18. "Technology Innovation and Entrepreneurship at Lehigh: the Role of NClIA." *OPEN 2012: National Collegiate Inventors and Innovators Alliance Annual Conference*. San Francisco, March 23-25, 2012.
19. "Partnerships for Enhancing the Tech Commercialization Pipeline for Student Startups," *OPEN 2011: Catalyzing Innovation, National Collegiate Inventors and Innovators Alliance Annual Conference*. Arlington VA, March 24-26, 2011.
20. "Microfinance: Inclusive Financial Services for the Poor," invited keynote. Morning Star Rotary. Bethlehem, PA, February 24, 2011.
21. "Whence & Whither Microfinance?" For the *United Nations DPI-NGO Briefing: Microfinance: Ending Poverty One Loan at a Time*. New York, February 10, 2011.
22. "Aid to Africa." *Fresh Outlook* (TV talk show). Invited panelist for roundtable discussion. EBRU TV, Somerset, NJ, December 2010.
23. "The importance of STEM education on innovation, the regional economy, and creating a culture of entrepreneurship." Panel on Education, Innovation and Entrepreneurship. Renew Lehigh Valley & Allentown Economic Development Association. Allentown, PA, November 19, 2010.
24. "Helping Students Start and Grow the Next Big Thing in Our Community," invited keynote address, with Phil Weilerstein. University Economic Development Association Annual Conference, Reno NV, November 8-9, 2010.
25. "New Technologies in Microfinance: m-Banking and MIS platforms." *Expanding Financial Access in Africa: Prospects and Innovations in Microfinance*. Conference, Lehigh University, April 19 – 20, 2010.
26. "Building Pathways for Student Startups and Economic Development." University Economic Development Association Annual Conference, San Antonio TX, October 11-12, 2009.
27. "Cultural Entrepreneurship." *City as Utopia*. Conference, Lehigh University, April 11-12, 2008.
28. "Empirical Evidence of Technology Use and Human Resource Management in the Defense Industrial Base." Research Seminar, Penn State University, Berks, October 8, 2007.
29. "Absorptive Capacity and R&D Tax Policy: Are In-house and External Contract R&D Substitutes or Complements?" Department of Economics Research Seminar, University of Limerick, Ireland, March 23, 2007.
30. "Defence Procurement's Effects on Technology Use, Human Resource Practices, Labor Skills and Voluntary Quits in Small Manufacturers." Department of Economics Research Seminar, National University of Ireland, Galway, February 9, 2007.
31. "Infusing Principles of Business and Entrepreneurship into the Curriculum," with John B. Ochs (presenter). Plenary session, Electrical and Computer Engineering Department Heads Association, *ECEDHA 2007 Meeting*. St Augustine, Florida, March 16-20, 2007.

32. "Teaching Creatively: Disciplinary Perspectives-Business and Economics." Lehigh University Faculty Development Seminar, September 29, 2005.
33. "Developing Technology Entrepreneurship Curricula." College of Business, University of Missouri, Columbia MO, April 14, 2003.
34. "Current Issues in Technology Management in Europe." National Technological University Management of Technology Residency, Vail, CO, August, 2002
35. "Does ATP Pick High Economic Spillover Technologies? Comparing ATP Winners and Non-Winners in Photonics," with Theodore W. Schlie. Invited research presentation. National Institute of Standards and Technology, US Commerce Department, November 26, 2001.
36. "The Effects of Commercial Offsets on Aerospace Subcontractors." Testimony before the *Presidential Commission on Offsets*. White House Conference Center, December 4, 2000.
37. "Case Studies of Technology Economics in Corporate Strategy." National Technological University Management of Technology Residency. Miami, FL, January 6-10, 2000.
38. ---, repeated January 2001.
39. "Lehigh University Undergraduate Research and Partnering Opportunities." For the Lehigh Valley Partnership. October 7, 1999.
40. "Five Field Studies of European R&D Management, circa 1999." National Technological University Management of Technology Residency. August 16-20, 1999.
41. "Dual-Use Technologies and The Structure of the Defense Industry" distance learning talk for the NTU's Science & Technology Institutions program, July 1998.
42. ---, repeated July 1999.
43. ---, repeated July 2001.
44. "Introduction to Technology, Trade and Economic Growth," National Technological University Management of Technology Residency, Vail, CO, August 17-21, 1998. Repeated August 1999, 2000, 2001.
45. "Cooperative R&D Policies in Europe," National Technological University Management of Technology Residency, Vail, CO, August 17-21, 1998.
46. "Dual-Use Supplier Management and Strategic International Sourcing in Aircraft Manufacturing," National Academy of Sciences, Washington, DC, January 1998.
47. "Technology, Trade and Economic Growth," National Technological University Management of Technology Residency, San Diego, January 5-9, 1998. Repeated January 1999, 2000 & 2001.
48. "Technology and Economic Systems," Diamond Center for Economic Education, Teacher Intern Program, Lehigh University, Bethlehem, PA, June 24, 1997.
49. "Tips for Effective Teaching and Learning" with Darlene Chisholm, Lehigh University Department of Economics Colloquium, February 21, 1997.

50. "Management of Technology in the European Community," for the conference on Managing Technology in the Global Economy: A Professional Development Program for Technical Managers, Beaver Run Conference Center, Breckenridge, CO, August 22-24, 1996.
51. "Lehigh University's Educational Program in Integrated Product Development (IPD)," with John B. Ochs* & Berrisford W. Boothe, Spring 1996 Meeting of the Unigraphics Users Group, Newport Beach, CA, March 1996.
52. ---, with John B. Ochs & Berrisford W. Boothe, for the Lehigh University College of Engineering & Applied Sciences Dean's Council, April 1996.
53. ---, with John B. Ochs* & Berrisford W. Boothe, International Integrated Product Development Workshop, Otto von Guericke University, Magdeburg, Germany, September 1996
54. ---, with John B. Ochs* & Berrisford W. Boothe, 1996 Ohio Aerospace Institute Pathfinders Conference & Workshop. Cleveland, OH, October 1996.
55. ---, with John B. Ochs* & Berrisford W. Boothe, American Society of Mechanical Engineers, Annual Meeting, Atlanta, November 1996.
56. "The Distance Learning Classroom," with Peter Poole. Lehigh University Faculty Development Series, October 22, 1996.
57. "Lehigh University Integrated Product Development Program," with Heather Beam, Business-Higher Education Forum Winter Meeting, Dana Point, CA, February 8-10, 1996.
58. ----, with Heather Beam, for the Lehigh University Board of Trustees, April 1996.
59. "Economics in the Business World," Diamond Center for Economic Education, Teacher Intern Program, Lehigh University, Bethlehem, PA, June 21, 1995 & June 27, 1996.
60. "Integrated Supplier Management and Strategic Sourcing at Vought Aircraft," MIT Lean Aircraft Initiative, Supplier Systems and Relationships Workshop, Massachusetts Institute of Technology, Cambridge, MA, April 4-5, 1995.
61. "Survey Evidence on Dual-Use Manufacturing," Texas Instruments, Richardson Texas, March 21, 1994.
62. "Customer-Supplier Relations in the US Machining Intensive Durable Goods Industries," with Maryellen R. Kelley, Supplier Systems & Relations Workshop, Massachusetts Institute of Technology, Cambridge MA, December 7-9, 1993.
63. "The Myth of the Defense Ghetto: Dual-Use in US Manufacturing," Martindale Center for the Study of Private Enterprise, Faculty Research Seminar, Lehigh University, October 22, 1993.
64. "Social Capital as a Policy Goal in the EC Cooperative R&D Programs," invited paper for the International Studies Association 34th Annual Convention, Acapulco, Mexico, March 23-27, 1993.
65. "The Political Economics of Collaborative R&D: Evidence from Interviews with Esprit Participants", Technology and the Global Economy Working Group, Center for Science and International Affairs, Harvard University, November 20, 1990.
66. "Eureka and the Evolution of European Community Science and Technology Policies," Center for Science and International Affairs, Harvard University, October 7, 1987.

67. Valedictory Address, University of Rochester, College of Engineering and Applied Science, May 5, 1984.

REFEREED PRESENTATIONS

68. "What Next for the Cultural Coalition? Pandemic as a turning point in reimagining regional community arts and culture governance," with Sean King, Roland Kushner, and David Mickenberg. For the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA) Conference, *From Climate Change to Social Justice: How Citizens are Re-Shaping Nonprofits and Philanthropy in an Age of Disruption and Transition*, November 12-14, 2020.
69. "Poverty-Water Nexus: Breaking the Vicious Cycle through Technology Driven Community Empowerment," with Michael S. German and Arup K. SenGupta, InFocus Symposium 2020—Scarcity and Health: Facing a Pandemic, Moravian College, Bethlehem, PA (virtual), April 22-23, 2020.
70. "The Effect of the Global Financial Crisis on the Cost Inefficiencies of the Double Bottom Line Goal of Microfinance Institutions" with Amy Eremionkhale, Southern Economic Association 87th Annual Meeting, November 17-19, 2017
71. "The Effect of the Global Financial Crisis on the Cost Inefficiencies of the Double Bottom Line Goal of Microfinance Institutions," with Amy Eremionkhale. Eastern Economic Association Conference, New York City, February 23-26, 2017.
72. "Economic Evidence of Sustainable Microenterprises for Arsenic Remediation from Drinking Water", with Michael German and Arup SenGupta, Poverty & Inequality Conference, InFocus Symposium 2016, Moravian College, Bethlehem, PA, April 5, 2016.
73. "From Lab and SocEnt Startup to Impact on 200,000 Lives" with Michael German and Arup SenGupta, Open 2016, VentureWell Annual Conference, Portland, OR, March 4, 2016.
74. "Can Short-stay International Field Immersion Programs Have Real Impact? Fusing Sustainable Development and Entrepreneurship Curricula" with Mark Orrs and Christopher Kauzmann, National Collegiate Inventors & Innovators Alliance, NCIIA Open 2014, San Jose, March 20-22, 2014.
75. "Can Short-stay International Field Immersion Programs Have Real Impact? Fusing Sustainable Development and Entrepreneurship Curricula" with Mark Orrs and Christopher Kauzmann, Africa Network Annual Conference, Denison University, Granville Ohio, Oct 25-26, 2013.
76. "Can Social Justice and Entrepreneurship Cohabitate?" (plenary presentation), with Bruce Moon and Kate McCarthy, *Changing Africa, Changing Pedagogies*, Africa Network Annual Conference, Indianapolis, IN, September 16-18, 2011.
77. "Partnerships or Tech Commercialization by Student Startups: The EcoTech Example," UEDA Award Finalist Presentation, University Economic Development Association Annual Conference, Reno NV, Nov. 8-9, 2010.
78. "Microfinance Field Immersion in Africa", *Africa on Campus: Enhancing The Place Of Africa Inside And Outside The Classroom*, Africa Network Annual Conference, Lisle (Chicago), IL, April 17-19, 2009
79. "What is the After-Tax Cost of R&D with the Alternative Incremental Research Credit? A Firm-Level Analysis," with Lolita Paff*, Applied Business and Entrepreneurship Association International (ABEI) Fourth Annual Meeting, Maui, Hawaii, November 16-20, 2007.

80. "A Dream Model of Technical Entrepreneurship Education: Envisioning an Ideal Educational Environment for the Next Generation of Global Business Creators," with John B. Ochs*, Gerard P Lennon, for the *2007 American Society for Engineering Education Annual Conference and Exposition*, Honolulu, Hawaii, June 24-7, 2007.
81. "What is the After-Tax Price of R&D? An Inter-State Comparison based on R&D Tax Credits, Corporate Tax Rates, and Income Apportionment, using Firm-Level Data," with Lolita Paff, Eastern Economic Association Conference, Philadelphia, February 24-26, 2006.
82. "Tools for Assessing Program and Student Performance within Multidisciplinary Teams in Experiential Learning Courses," with Lisa Getzler-Linn and John B. Ochs, *AACSB Graduate Programs Conference*, Tampa, Florida, November 18-20, 2005.
83. "Can Students Help Entrepreneurs? An Evaluation of Linking Academic Technology Entrepreneurship Courses With Dislocated and New Entrant Workers to Foster Start-ups," with M. Jean Russo and John B. Ochs, 12th Annual EDINEB International Conference, Innovating the Dynamics of Organizing Learning in Business and Business Education, Antwerp, Belgium, June 15-17, 2005.
84. "A Test for R&D Complementarities in Bio-Pharmaceutical Industries Using R&D Tax Price Changes," with Lolita Paff, Eastern Economic Association Conference, Washington, DC, February 20-22, 2004.
85. "Diffusion Pathways for Advanced Photonics and Optoelectronics Technologies," with Theodore W. Schlie, Western Economics Association, Vancouver, July 1, 2000.
86. "Integrating Design Arts, Engineering and Business Curricula through Multidisciplinary Product Design Projects," with John B. Ochs & Barrisford W. Boothe, for the Second Annual NCIIA National Conference, National Collegiate Inventors & Innovators Alliance, Washington, DC, March 13-15, 1998.
87. "Defense and Non-Defense Production Networks and the Diffusion of Modern Manufacturing: Preliminary Econometric Results," with M.R. Kelley, American Economic Association, Jan. 3-5, 1992.
88. "The E.C. and Institutions of Cooperative Industrial R&D," Association for Public Policy Analysis & Management, Washington, D.C., Oct. 24-26, 1991.
89. "Fostering Cooperation: The Role of Esprit in Shaping Industrial Behavior," for the conference "Western Europe at the Crossroads," Columbia University, Institute on Western Europe, April 6-8, 1991.
90. "Defense and Non-Defense Production Networks and the Diffusion of Modern Manufacturing Technologies," with Maryellen R. Kelley, American Economic Association Annual Conference, New Orleans, Jan. 3, 1991.
91. "R&D Consortia as Technology Policy in Europe," Association for Public Policy Analysis & Management, Arlington, Va., Nov. 2-4, 1989.
92. "Research Collaboration in the EC: Innovation, Technology Diffusion, and Political Support," European Community Studies Association, George Mason University, May 24-25, 1989.

ORGANIZED SESSIONS & CONFERENCES

An Equitable and Sustainable Future of Work. Full-day conference, 250+ participants, co-organized between Lehigh University-United Nations Partnership and my Martindale Center for the Study of Private Enterprise. Lehigh University, Bethlehem, PA. April 11, 2019.

The Microfinance Industry: Revolution or Footnote? Lesson for the next 10 Years. Co-organized and co-sponsored 3-day workshop and chaired one panel. Lehigh University, Martindale Center for the Study of Private Enterprise, Bethlehem, PA. March 30-April 1, 2017.

Expanding Financial Access in Africa: Prospects and Innovations in Microfinance, organized conference, chaired two panels, and gave one talk. Lehigh University, April 19 – 20, 2010.

Microfinance Innovation Roadmapping Workshop: Management Information Systems, organized conference with Karen Hicks, chaired two sessions, Lehigh University, June 24-25, 2008.

Led Faculty Development Brown Bag Lunch Workshop on the Distance Learning Classroom, Lehigh University, 1996

Federal Dual-Use Technology Policies, organizer with Alden Bean & panel moderator, National Technological University Residency Workshop, Georgetown University, May 20, 1994.

Technology Transfer Management in Federal Laboratories, organized with Bruce Smackey, facilitated three-day case discussion workshop, National Technology Transfer Center (NTTC), Wheeling, West VA, June 15-17, 1993.

G. COURSES TAUGHT

Lehigh University	Term	Notes & Features
1. ECO 1 Principles of Economics	F98, F08	
2. ECO 11 Principles of Microeconomics	Sp95	
3. ECO 105 Intermediate Microeconomic Analysis	Sp93	
4. ECO 115 (now Eco 146) Applied Microeconomic Analysis	F93	Co-designed new & taught first time
5. ECO 145 Statistical Methods	4 times	
6. ECO 158/258/273 Community Consulting Practicum	9 times	Co-designed new, team taught projects course
7. ECO 195/371: Microfinance Immersion Seminar	5 times	Designed new, study abroad
8. ECO 203 Microfinance	10 times	Designed new
9. ECO 333 Economics of Business Decisions	17 times	Writing intensive
10. ECO 362 Martindale Research Seminar	9 times	Original student research; study abroad; lead to published journal articles
11. ECO 371/372/96 Independent Study (UGrad)	15 times	Research theses & projects, meet weekly
12. ECO 371 Theatre Design & Business Planning	Su97	Co-designed pilot integrated learning experience, team taught
13. ECO 408/ECO 402 Managerial Econ	28 times	For many years distance course via satellite

14. ECO 427 Basic Statistics	3 times	Designed new
15. ECO 448 Business Economics	F18, F19	
16. ECO 467/GECO 404 Technology, Trade & Growth	7 times	All 7 times were distance via satellite to National Technological University
17. ECO 471/472 Special Topics Readings (Grad)	10 times	Topics usually technology & innovation Economics
18. ENGR 211/BUS211/DES211 Integrated Product Development I	15 times	Co-designed new, team taught, won several national awards
19. ENGR 212/BUS212/DES212 Integrated Product Development II	F01, F06, F08, F09	Team taught
20. ENTP 307: International Social Entrepreneurship	10 times	Co-designed new, team taught
21. ENTP 311: Entrepreneurship Practicum	Sp05	Co-designed new, team taught
22. GBUS 492: Commercializing the SDGs	Sp18	Co-designed new, team taught; white papers for UN President's office
23. IBE 197 Sophomore IBE Projects	6 times	Designed new
24. IBE 395 Capstone IBE Projects I	Sp03	Designed new, team taught
25. IBE 396 Capstone IBE Projects II	F03	Designed new, team taught
26. IBE 96 Freshman IBE Workshop	6 times	Designed new, team taught
27. MGT 195 (became BUS 1) Intro to Business	F97	Helped design and taught first pilot year
28. CSB 312 Design of Integrated Business Applications I	5 times	Capstone computer science & business team projects for microfinance clients
29. CSB 313 Design of Integrated Business Applications II	F06, F08, F09	Capstone computer science & business team projects for microfinance clients
30. Global Village, Short Course: Bringing New Products to Market	5 times	Designed new
31. Lehigh Mandela Fellows Program, Short course: Microfinance	Su17, Su19	Designed new
32. PA School for Global Entrepreneurship, Elective Short Course: Microfinance	Su17, Su19	Designed new
33. PA School for Global Entrepreneurship, Core Course: Markets, The Big Picture	14 times	Designed new

Harvard University

34. Microeconomics	Summers 1988-91	
35. The Policy & Politics of the US Space Program	Sp88	Designed new

Teaching evaluations very consistently in the 4.4-5.0 range out of 5.0.
 Teaching award winner at all three institutions at which taught.

H. SERVICE

UNIVERSITY SERVICE

Leadership

Executive Director, Martindale Center for the Study of Private Enterprise, 2015-date

Founding Executive Director, Baker Institute for Entrepreneurship, Creativity &

Innovation

Innovation, 2010-2015
Chair, University Education Policy Committee (EdPol), member 2016-2019, Vice Chair
2017-2018, Chair 2018-19

Chair, EdPol Course & Curriculum Committee, 2018-2019

Director, Microfinance Program, 2005-date

Director, Entrepreneurship Minor, 2009-2017

Global Citizenship Program Leadership Trio, CBE-Lead, 2014-2015.

Chair, Vice Provost Search Committee, VP for Creative Inquiry and Director, Mountaintop Initiative, 2015-2016

Chair, Entrepreneurship Curriculum Oversight Committee, 2009-2017.

Chair, Global Social and Sustainable Development and Design Working Group, 2011-2012

Chair, Faculty Search Committee for Entrepreneurship Professor of Practice, 2013-2014.

Chair, Faculty Search Committee for Director, VentureSeries, 2010-2011.

Co-chair, Entrepreneurship Initiative, 2007-2009

Director, Wilbur Powerhouse, 2006-2010

Chair, Wilbur Powerhouse Building Oversight Committee, 2004-2011

Chair, Entrepreneurship Curriculum Oversight Committee, 2004-2006

Chair, Campbell Social Science Research Prizes Selection Committee, 2005-2006

Integrated Product Development Program Committee, CBE Lead, 1994-2012

Director, Institute for the Study of Regional Political Economy, 2001-2008

Chair, Creativity Professor of Practice Search & Strategy Committee, 2004-2005

Chair, Entrepreneurship Minor Curriculum Committee, 2003-2004

Directed Ventures Initiative as Faculty Fellow to the Provost, 1999-2002

Chair, Ventures Faculty Advisory Group, 1999-2001

Chair, CBE Distance Learning Committee, 1998.

Co-chair, Integrated Learning Experiences (ILE) faculty working group, 1996-1997

Co-chair, CBE Integration Task Force, 1997

Undertook census of all Department Chairs, identifying all existing Undergraduate Original Inquiry opportunities across campus, 1999 and again 2001

Co-authored White Paper for Deans and Provost on Supporting Cross College Curricular Initiatives, 2001

Drafted “Ventures” & Faculty Fellow White Paper for Provost, 1998

Committees

International Travel Advisory Committee (ITAC), 2018-date

Creative Inquiry Faculty Advisory Committee, 2016-date

Sustainable Development Advisory Committee, 2013-2019 2010

Executive Director of Libraries, Search Committee, 2018

Global Citizenship Program Redesign Advisory Committee, 2018

International Programs Scaffolding Task Force, 2018

Global Lehigh Summit, to advise VP International Affairs, 2018

Standing on Students Committee (S.O.S. Committee) 2017-2018.

Internationalization Strategic Planning Committee, (ACE Committee) 2016-2018

Global Citizenship Program Steering Committee, 2015-2017

Lehigh University President, Search Committee, 2014

Dean of College of Business and Economics, Search Committee, 2013-2014

International Specialist, College of Business & Economics, Search Committee, 2013

Educational Leadership, College of Education, Search Committee, 2012-2013
Orchestral Strings, Professor of Practice, Dept. of Music, Search Committee, 2012-2013
Technology Entrepreneurship, Professor of Practice, Search Committee, 2011-2012
Director of Sustainable Development, Search Committee, 2011-2012
Educational Leadership, College of Education, Search Committee, 2011-2012
Interdisciplinary Teaching & Research Task Force (re P&T guidelines), 2011
Vice Provost for Research and Graduate Studies Search Committee, 2009-2010
ArtsLehigh Advisory Board, 2008
Faculty Awards Selection Committee, 2008
Middle States Reaccreditation, Technology Subcommittee, 2007.
Provost's Entrepreneurship Task Force, 2006-2007.
Design Arts Advisory Committee, 2004-2008
Creativity Task Force, 2005-2006
Product Design Professor of Practice Search Committees 2004-2006
Environmental Risk Analysis & Communication Faculty Search Committee, 2004-2005
Entrepreneurship Minor Director Search Committee, 2004
Teaching & Learning Technology Laboratory Advisory Committee, 2002-2012
Environmental Policy Senior Faculty Search Committee, 2003-4
Wilbur Powerhouse Building Oversight Committee, 2003-date, chair 2004-2011
Design Arts Director Search Committee, 2003-4
Economics Junior Faculty Search Committee, 2002-3
Faculty Development Advisory Committee, 2001-2
Design Career Awareness Program Planning Committee, 2000-3
McGowan Scholarship Selection Committee, 2001-2009
Tauck Scholars Selection Committee, 2000-2009
Martindale Scholar Selection Committee, 1998-date
Campbell Social Science Research Prizes Selection Committee 2001-2006, 2008, chair 2005-6
International Research Trip Planning Committee, Martindale Center, 1998-date
Wilbur Powerhouse Renovations Committee, 1997-2003
CBE faculty representative to the College of Engineering and Applied Science, 1995-2004
2020 Design Arts Program Proposal Committee, 2001-2
Industrial Engineering Faculty Search Committee, 2001
Committee to Redesign Graduate Microeconomics Sequence in MS & PhD Program, 2001
Committee to Redesign Quantitative topics in UG Eco courses. 2001
Engineering Career Awareness Program Planning Committee, 2001
Luce Endowed Professorship Proposal Committee, 2000-2001
Kenan Chair Search Committee, 2000
BIS Junior Faculty Search Committee, 2000
Committee to draft Business Economics Major, 2000
Integrated Learning Experiences (ILE) faculty working group, 1996-1999,
MOT program advisory & curriculum committees, 1993-1999
CBE distance learning committee, 1995-1998
CBE representative to a university working group for developing a revenue sharing scheme
for distance learning, 1997
Undergraduate core objectives working group, 1997
Working group for recommendations on teaching development process, 1997
CBE Faculty LAN committee, 1994-1997
Business communications task force, 1996
Engineering College TRP Grant Proposal Committee, 1995
CBE Science and Technology Curriculum Committee, 1993-1994
CBE S&T First Course Subcommittee, 1993-1994
CBE Math 41/44 liaison committee, 1994
University of Rochester Provost Search Committee, Undergraduatate Rep, 1983-1984

Other Significant University Service

Fintech Club Advisor, 2017-date
Family Business Club Advisor, 2016-date
Entrepreneurship Minor Advisor, 2009-2019
Microfinance Club Advisor 2006-2015
B.A. Economics Major Advisor, 2002-2013
Microeconomics Club Advisor, 2008
International Fellowships (Rhodes, Marshall, Fulbright) Interviewer, 2013-date
Non-major undergraduate Business advisor, 1993-2004
Presented IPD more than 125 times to potential corporate sponsors, potential alumni
donors, and other visitors 1994-2011
CBE freshman pre-registration advising in August. 1998-2003
Developed first Freshman Integrated Business & Engineering Workshop Course, 2001
MBA economics advisor, 1996-2001
Football Recruiting CBE Rep., 1999-2000, 2004
Developed w/ Tom Hyckak New Economic Development Practicum course, the first new
Urban studies related course at Lehigh in at least a decade, 1999
Co-organized IPD industrial advisory board meeting, 1998 and again 1999
Invited, organized & hosted Lehigh campus visit and IPD introduction/tour for
Northeastern University College of Engineering Dean Al Soyster, 1998
Presented IPD to PA State Senator and staff, 1999
Drafted now-passed proposal to add Consulting Requirement to Eco. Major, 1999
Presented IPD to Senator Spector's DC staff, 1998
Presented IPD to Senator Santorum's DC staff, 1998
Peer teaching evaluator for ~10 CBE colleagues, 1998-date
2X CBE Strategic Planning Retreats, 1998
Mentor for Iacocca scholars, 1995, 1997
Faculty advisor to ODE, the economics honor society. 1995-1997
Interviewed candidates for women's volleyball coach, 1996
Presented IPD Program to Norm Augustine, CEO of Lockheed Martin, 1996.
"Internet Advisor" for Martindale Center, setting up Internet discussion group, 1995
Several talks every year to Pre-Freshman Days, Family Weekend Events, Alumni Events, etc.
I write dozens of student recommendations annually and go to as many student functions as
I can work into my schedule, my family commitments, and my waistline.

PROFESSIONAL SERVICE

President, past Secretary, Board of Directors, Humanitarian Social Innovations, Lehigh Valley, PA,
President 2019-date, Secretary 2018-2019, Member 2014-date.
Past President, Secretary, Treasurer, Board of Directors, Rising Tide Community Loan Fund,
Bethlehem, PA, President 2012-2014, Secretary 2011 & 2015-2017, & 2018, Treasurer 2017,
Member 2010-2018 and 2020-date
Vice Chair, Board of Directors, Cultural Coalition of Allentown, VP 2018-date, Member 2018-date.
Treasurer, Board of Directors, Africa Network, National, Treasurer 2016-date, Member 2015-date.
Board of Directors, Lehigh Valley Arts Council, Lehigh Valley, PA, President 2019-date, Member
2015-date.
Board of Directors, Inspirit Group, 2015-2017.
Secretary, Board of Directors, Support No Stigma, Lehigh Valley, PA, 2013-2015
Member, Innovation, Talent and Entrepreneurship Council, Lehigh Valley Economic Development
Corporation, Lehigh Valley, PA, 2012-2015.
Grant review committees, National Science Foundation, 2014, 2016dd
Founding Member, Faculty Advisory Council, ACCION International Center for Financial Inclusion,
Washington DC, 2008-2013.
Visiting Scholar, National University of Ireland, Galway, Department of Economics, 2007.
The National Academies' Committee on Innovation Models for Aerospace Technologies, 2004-2006.

Grant Proposal Review Board, National Collegiate Inventors & Innovators Alliance, 1998-1999,
2005-date.

Advisory Board and Founding Member, Lehigh Valley CEO Forum, 2001-2006.

Visiting Scholar, University of York (UK), Centre for Defence Economics, 2000.

Task Force Member, U.S. Department of Commerce, Office of Technology Policy, U.S.-Israel

Science & Technology Commission Task Force on Commercialization of Military Technology,
1996-1999.

Management of Technology Program Faculty, National Technological University, 1996-2003.

Center Associate, Center for Trade & Commercial Diplomacy, Monterey Institute of International
Studies, 1996-1997.

Research Team Member, Massachusetts Institute of Technology Lean Aircraft Initiative, 1994-1995.

Advisory Board, Defense Conversion Systems Synthesis Project, Carnegie Mellon Univ., 1993-1994.

Advisory Board, Technology Transfer Systems Synthesis Project, Carnegie Mellon Univ., 1992-1993.