Lee G. Branstetter

Carnegie Mellon University • H. John Heinz III College • School of Public Policy and Management 5000 Forbes Avenue Pittsburgh, PA 15213 • TEL (412) 268-4649 • branstet@andrew.cmu.edu

CURRENT ACADEMIC APPOINTMENTS

Carnegie Mellon University

Pittsburgh, PA

Heinz College and Department of Social and Decision Sciences

Director, Future of Work Initiative, 2016-present

Professor of Economics and Public Policy, 2014-present

Associate Professor of Economics and Public Policy (with tenure), 2006-2013

National Bureau of Economic Research

Cambridge, MA

Research Associate, 2006-present Faculty Research Fellow, 1996-2006

Affiliated with the Program on Productivity, Innovation, and Entrepreneurship and

the Program on International Trade and Investment.

Peterson Institute for International Economics

Nonresident Senior Fellow, 2013-present

Washington, DC

PREVIOUS APPOINTMENTS

Council of Economic Advisers

Washington, DC

Executive Office of the President of the United States

Senior Economist for International Trade and Investment, 2011-2012

Journal of International Economics

Associate Editor, 2003-2011

Columbia Business School New York, NY

Daniel Stanton Associate Professor of Business, 2004 – 2006 Director, International Business Program, 2002 – 2006

Associate Professor of Finance and Economics, 2001 – 2006

University of California, Davis

Davis, CA

Director, East Asian Studies Program, 1999 – 2001 Assistant Professor of Economics, 1996 – 2001

Dartmouth College Hanover, NH

Visiting Assistant Professor, Economics, 1996-97

EDUCATION

Harvard University Cambridge, MA

National Science Foundation Graduate Research Fellow

Ph.D. in Economics, 1996.

Thesis Title: Innovation, Knowledge Spillovers, and Dynamic Comparative Advantage

Thesis Committee: Zvi Griliches (Chair), Richard Caves, and David Weinstein

Northwestern University Evanston, IL

Graduated with departmental honors in Mathematical Methods in the Social Sciences and Economics, 1991. Phi Beta Kappa (1990). Truman Scholar (1989).

ACADEMIC PUBLICATIONS

- [1] Branstetter, L., Drev., M., and Kwon, N., "Get with the Program: Software-driven Innovation in Traditional Manufacturing," forthcoming *Management Science*. Previously circulated as NBER WP no. 21752.
- [2] Lam, L., Branstetter, L., Azevedo, I., A., A Sunny Future: Expert Elicitation of China's Solar Photovoltaic Technologies, forthcoming, Environmental Research Letters.
- [3] Branstetter, L. and Kwon, N., "South Korea's Transition from Imitator to Innovator," forthcoming, *Journal of the Japanese and International Economies*.
- [4] Lam, L., Branstetter, L., and Azevedo, I., "China's Wind Industry: Leading in Deployment, Lagging in Innovation," *Energy Policy*, 106, July 2017, pp. 588-599.
- [5] Branstetter, L., "Intellectual Property Rights, Innovation, and Development: Is Asia Different?" *Millennial Asia*, 8 (4), April 2017, pp. 5-25.
- [6] Branstetter, L., Chatterjee, C., and Higgins, M., "Regulation and Welfare: Evidence from Paragraph IV Generic Entry in t4e Pharmaceutical Industry," *RAND Journal of Economics*, 47 (4), Winter 2016, pp. 857-890.
- [7] Lam, L., Branstetter, L., Azevedo, I., (2016) "China's Wind Electricity and Cost of Carbon Mitigation are More Expensive than Anticipated." *Environmental Research Letters*, 11 084015.
- [8] Branstetter, L., Li, G., and Veloso, F., "The Rise of International Co-Invention," in A. Jaffe and B. Jones (eds.), *The Changing Frontier: Rethinking Science and Innovation Policy*, NBER and University of Chicago Press, 2015.
- [9] Branstetter, L., Lima, F., Taylor, L., and Venancio, A., "Do Entry Regulations Deter Entrepreneurship and Job Creation? Evidence from Recent Reforms in Portugal." *Economic Journal*, vol. 124, June 2014, pp. 805-832.
- [10] Branstetter, L., and Pizer, W., "Facing the Climate Change Challenge in a Global Economy," in R. Feenstra and A. Taylor (eds.), *Globalization in an Age of Crisis*, 2014, NBER and University of Chicago Press.
- [11] Arora, A., Branstetter, L., and Drev, M., "Going Soft: How the Rise of Software-Based Innovation Led to the Decline of Japan's IT Industry and the Resurgence of Silicon Valley." *Review of Economics and Statistics*, vol. 95, no. 3, July 2013, pp. 757-775.
- [12] Branstetter, L., and Saggi, K., "Intellectual Property Rights, Foreign Direct Investment, and Industrial Development." *Economic Journal*, vol. 121, no. 555, September 2011, pp. 1161-1191.
- [13] Branstetter, L., Fisman, R., Foley, C. F., and Saggi, K., "Does Intellectual Property Rights Reform Spur Industrial Development?" *Journal of International Economics*, vol. 83, Spring 2011, pp 27-36.
- [14] Branstetter, L., and Foley, C. F., "Facts and Fallacies of U.S. FDI in China," in R. Feenstra and S. Wei, (eds.) *China's Growing Role in World Trade*, 2010, NBER and University of Chicago Press.
- [15] Branstetter, L., Foley, C.F., and Saggi, K., "Has the Shift to Stronger Intellectual Property Rights Promoted Technology Transfer, FDI, and Industrial Development?" *The WIPO Journal*, vol. 2 no. 1, Fall 2010, pp. 93-98.
- [16] Branstetter, L., and Lardy, N., "China's Embrace of Globalization," in L. Brandt and T. Rawski, (eds.), *China's Economic Transition: Origins, Mechanisms, and Consequences*, 2008, Cambridge University Press.
- [17] Branstetter, L., Kuriakose, S., Goddard, J., and Goldberg, I., "Knowledge Absorption and Innovation in ECA: Links to Trade, FDI, and Knowledge Flows," in *The Second Report on the Knowledge Economy in Eastern Europe and Central Asia*, The World Bank, 2008
- [18] Branstetter, L., "China's Financial Markets: An Overview," in C. Calomiris, (ed.), *China's Financial Transition at a Crossroads*, 2007, Columbia University Press.

- [19] Branstetter, L., Fisman, R., and Foley, C. F., "Do Stronger Intellectual Property Rights Increase International Technology Transfer? Empirical Evidence from U.S. Firm-Level Data." *Quarterly Journal of Economics*, vol. 121, no. 1, pp. 321-349, 2006.
- [20] Branstetter, L., "Is Foreign Direct Investment a Channel of Knowledge Spillovers: Evidence from Japan's FDI in the United States." *Journal of International Economics*, vol. 68, February 2006, pp. 325-344.
- [21] Branstetter, L., and Chen, J.-R., "The Impact of Technology Transfer and R&D on Productivity Growth in Taiwanese Industry: Microeconometric Analysis Using Plant and Firm-Level Data." *Journal of the Japanese and International Economies*, vol. 20, no. 2, June 2006, pp. 177-192.
- [22] Branstetter, L., "Do Stronger Patents Induce More Local Innovation?" *Journal of International Economic Law*, vol. 7, no. 2, 2004, pp. 359-370. Reprinted in K. Maskus and J. Reichman, eds., *International Public Goods and Transfer of Technology Under a Globalized Intellectual Property Regime*, Cambridge University Press, 2005.
- [23] Branstetter, L., "Exploring the Link between Academic Science and Industrial Innovation." *Annales d'Economie et de Statistique*, vol. 79-80, Fall 2005, pp. 119-142.
- [24] Branstetter, L, and Nakamura, Y., "Has Japan's Innovative Capacity Declined?" in Anil Kashyap, Jenny Corbett, Magnus Blomstrom, and Fumio Hayashi, (eds.), *Structural Impediments to Growth in Japan*, 2003, University of Chicago Press and NBER.
- [25] Branstetter, L., and Sakakibara, M., "Measuring the Impact of U.S. Research Consortia." *Managerial and Decision Economics*, vol. 24, Spring 2003, pp. 51-69.
- [26] Branstetter, L., and Feenstra, R., "Trade and Foreign Direct Investment in China: A Political Economy Approach." *Journal of International Economics*, vol. 58, no. 2, December 2002, pp. 335-358.
- [27] Branstetter, L., and Sakakibara, M., "When Do Research Consortia Work Well and Why? Evidence from Japanese Panel Data." *American Economic Review*, vol. 92, no. 1, March 2002, pp. 143-159.
- [28] Sakakibara, M., and Branstetter, L., "Do Stronger Patents Induce More Innovation? Evidence from the 1988 Japanese Patent Law Reforms." *RAND Journal of Economics*, vol. 32, no. 1, Spring 2001, pp. 77-100. Reprinted in R. Towse and R. Holzhauer, (eds.), *The Economics of Intellectual Property*, Edward Elgar Publishing Limited, 2001. Reprinted in K. Maskus, (ed.), *The WTO, Intellectual Property, and the Knowledge Economy*, a forthcoming volume in the series *Critical Perspectives on the Global Trading System and the WTO*, Edward Elgar Press.
- [29] Branstetter, L., "Are Knowledge Spillovers International or Intranational in Scope? Microeconometric Evidence from Japan and the United States." *Journal of International Economics*, vol. 53, February 2001, pp. 53-79.
- [30] Branstetter, L., "Looking for International Knowledge Spillovers: A Review of the Literature with Suggestions for New Approaches." *Annales d'Economie et de Statistique* No. 49/50, 1998, pp. 517-540. Reprinted in D. Encaoua et. al., (eds.), *The Economics and Econometrics of Innovation*, Kluwer Academic Publishers, 2000.
- [31] Branstetter, L., "Foreign Direct Investment and R&D Spillovers: Is There a Connection?" in T. Ito and A. Krueger, (eds.) *The Role of Foreign Direct Investment in East Asian Economic Development*, NBER and University of Chicago Press, 2000.
- [32] Branstetter, L., "Vertical Keiretsu and Knowledge Spillovers in Japanese Manufacturing: An Empirical Assessment." *Journal of the Japanese and International Economies*, vol. 14, June 2000, pp. 73-104.
- [33] Branstetter, L., Crepon, B., Hall, B., and Mairesse, J., "Does Cash Flow Cause Investment and R&D? An Exploration Using Panel Data from French, Japanese, and United States Scientific Firms." in D. Audretsch and R. Thurik, (eds.) *Innovation, Industry Evolution, and Employment*, Cambridge University Press, 1999.
- [34] Branstetter, L., "Technology Spillovers in Production Keiretsu." (in Japanese) *Financial Review* vol. 46, Special Issue "Human Investment and R&D," July 1998, pp. 72-86.
- [35] Branstetter, L., and Sakakibara, M., "Japanese Research Consortia: A Microeconometric Analysis of Industrial Policy." *Journal of Industrial Economics*, vol. 46, no. 2, June 1998, pp. 207-233.

Case Studies

[36] Branstetter, L., Lerner, J., and Nakabayashi, T., "New Business Investment Company: October 1997." Harvard Business School Case No. N9-299-025, 1999.

Policy Briefs

- [37] Branstetter, L., and Sichel, D., "The Case for an American Productivity Revival," Peterson Institute Policy Brief 17-26, June 2017.
- [38] Lam., L., Branstetter, L., and Azevedo, I., "Against the Wind: China's Struggle to Integrate Wind Energy into Its National Grid," Peterson Institute Policy Brief 17-5, January 2017.
- [39] Branstetter, L., Jensen, J. B., and Glennon, B., "The Importance of doing our BIT: The Economic Potential of a U.S.-China Bilateral Investment Treaty," Chapter 10 in Posen, A. and Ha, J., (eds.), *U.S.-China Cooperation in a Changing Global Economy*, Peterson Institute Policy Brief 17-1, January 2017.
- [40] Branstetter, L., "TPP and the Conflict Over Drugs: Incentives for Innovation versus Access to Medicines," Chapter 2 in Cimino-Isaacs, Schott, and Weisman, Eds., Assessing the TPP Volume 2: Innovations in Trading Rules, Peterson Institute for International Economics, 2016.
- [41] Branstetter, L., "TPP and Digital Trade," Chapter 6 in Cimino-Isaacs, Schott, and Weisman, Eds., Assessing the TPP Volume 2: Innovations in Trading Rules, Peterson Institute for International Economics, 2016.

Published Comments and Reviews

- [42] Branstetter, L., Review of *Turnaround: Third World Lessons for First World Growth*, by P. Henry, *Journal of International Economics*, vol. 91, no. 2, November 2013, pp. 372-373.
- [43] Branstetter, L., Review of *Producing Prosperity: Why America Needs a Manufacturing Renaissance*, by G. Pisano and W. Shih, *Journal of Economic Literature*, vol. 51, no. 2, June 2013, pp. 562-564.
- [44] Branstetter, L., Review of *Offshoring in the Global Economy*, by R. Feenstra, *Journal of Economic Literature*, Vol. XLIX, March 2011, pp. 158-161.
- [45] Branstetter, L., Review of *Nation-States and the Multinational Corporation: A Political Economy of Foreign Direct Investment*, by N. Jensen, *Journal of Economic Literature*, Vol. XLV, March 2007, pp. 190-192.
- [46] Branstetter, L., Comment on *Innovation and its Discontents*, by A. Jaffe and J. Lerner, in *Capitalism and Society*, Vol. 1, Issue 3, December 2006.
- [47] Branstetter, L., "Comment on Bernard and Jensen," in R. Feenstra, (ed.), *The Impact of International Trade on Wages*, NBER and University of Chicago Press, 2000.
- [48] Branstetter, L., "Comment on Belderbos et. al.," in T. Ito and A. Krueger, (eds.), *The Role of Foreign Direct Investment in East Asian Economic Development*, NBER and University of Chicago Press, 2000.
- [49] Branstetter, L., "Comment on *Japanese Electronics Multinationals and Strategic Trade Policies*," in *The Economic Review*, vol. 51, no. 3, July 2000, pp. 283-285.

WORKING PAPERS

- [50] Branstetter, L., Li, G., and Veloso, F., *Bridge to Excellence? The Impact of International Coinvention on Multinational R&D in China*.
- [51] Branstetter, L., Chen, J. R., Glennon, B., Yang, C. H., and Zolas, N., *Does Offshoring Manufacturing Harm Innovation in the Home Country? Evidence from Taiwan and China.*

- [52] Branstetter, L., Glennon, B., and Jensen, J., Knowledge Transfer Abroad: The Role of US Inventors within Global R&D Networks.
- [53] Branstetter, L., Chatterjee, C., and Higgins, M., Starving (or Fattening) the Golden Goose? Generic Entry and the Incentives for Early-Stage Pharmaceutical Innovation. NBER Working Paper no. 20532.
- [54] Branstetter, L., Kovak, B., Mauro, J., and Venancio, A., If It Can't Bend, Does It Break? The Impact of the China Shock on Portuguese Manufacturing.
- [55] Branstetter, L., Gandal, N., and Kunievsky, N., Network-Mediated Knowledge Spillovers: A Cross-Country Comparative Analysis of ICT/Information Security Innovations. NBER Working Paper no. 23808.
- [56] Braguinsky, S., Branstetter, L., and Regateiro, A., *The Incredible Shrinking Portuguese Firm*. NBER working paper 17265.
- [57] Branstetter, L., and Ogura, Y., Is Academic Science Driving a Surge in Industrial Innovation? Evidence from Patent Citations. NBER working paper no. 11561.
- [58] Branstetter, L., Feenstra, R., Foley, C. F., Harrigan, J., Jensen, J. B., Kletzer, L., Lipsey, R., Mann, C., Schott, P., and Wright, G., Report on the State of Available Data for the Study of International Trade and Foreign Direct Investment. NBER working paper no. 16254.
- [59] Arora, A., Branstetter, L., and Chatterjee, C., Strong Medicine: The Impact of Patent Reform on the Indian Pharmaceutical Industry.
- [60] Branstetter, L., and Drev., M., Who's Your Daddy? Foreign Investor Origin, Multi-Product Firms, and the Benefits of Foreign Direct Investment.

RESEARCH INTERESTS

Technological Innovation International Economics / International Business Economic Growth in Asia Industrial Organization

OTHER RESEARCH EXPERIENCE

- World Bank. Consultant to the East Asia / Pacific Group and Trade and Competitiveness Groups. Contributed to research on China's efforts to create and deploy alternative energy technology.
- World Bank, Consultant to World Bank Development Economics Research Group. Contributed to research on MNC R&D in China.
- 2008- World Bank, Consultant to the Eastern Europe and Central Asia Group. Contributed to research on
- 2009 technology absorption in Eastern Europe and Central Asia.
- 2008- **World Intellectual Property Organization**, Consultant. Reviewed commissioned papers on patent reform and innovation in South Korea.
- 2005- **Keio University Global Security Research Institute** (Japan), Research Fellow. Conducted research on global innovation systems.
- 2004 **Research Institute of Economy, Trade and Industry** (Japan), Visiting Fellow. Conducted research on the linkage between academic science and industrial innovation in Japan.
- 2003- **Hitotsubashi University, Institute of Economic Research** (Japan), Visiting Scholar. Conducted research on industrial innovation in Japan.
- 2003- World Bank, Consultant to the Research Group. Hired to contribute to research on the impact of changes in
- 2004 intellectual property rights regimes in developing countries on the behavior of multinational firms.
- 1997- **U.S. Department of Commerce, Technology Administration**, Consultant to the Advanced Technology Program of the National Institute of Standards and Technology.
- 1997 **Organization for Economic Cooperation and Development** (Paris), Consultant to the Science and Technology Directorate. Hired to assist the OECD in developing new international measures of technological activity.
- 1995 Hitotsubashi University (Japan), Visiting Scholar, Japan Foundation Doctoral Dissertation Fellow. Pursued

empirical research on the scope of knowledge spillovers as well as the impact of vertical keiretsu ties on productivity and product innovation in Japanese firms. Maintained formal affiliation with the Ministry of International Trade and Industry.

1993 **Ministry of International Trade and Industry** (Japan), Visiting Scholar. Analyzed the impact of main bank relationships on the performance of Japanese firms.

RESEARCH GRANTS AND CONTRACTS

ILDD/IIIC	
2017	Awarded funding from the Hillman Foundation to support research projects and collaborations conducted through the Heinz College Center for the Future of Work (\$500,000).
2017	Awarded funding from the Heinz Endowments to support research projects and collaborations conducted through the Heinz College Center for the Future of Work (\$200,000).
2017	Awarded research funding from CMU's Metro 21 Research Institute to study the impact of ridesharing on the employment outcomes of disadvantaged workers (\$75,000).
2014	Awarded funding from the Portuguese National Science Foundation (FCT) as part of a collaborative research project focused on user-generated innovation (\$407,000).
	Awarded research funding from the National Science Foundation to study the impact of generic entry on pharmaceutical innovation (\$307,000).
	Awarded research funding from the National Science Foundation to study the changing globalization of R&D (\$481,000).
2013	Awarded research funding from the CMU Scott Institute for Energy Innovation to study the rise of green energy manufacturing in China (\$50,000).
2011	Awarded research funding from the National Science Foundation to study recent trends in pharmaceutical
2010	innovation (\$99,346). Awarded research funding from the Portuguese National Science Foundation (FCT) to study
2010	the globalization of innovation in information technology (\$246,518)
	Awarded funding from the CMU Future of Work Center to study the impact of information technology on the globalization of R&D (\$37,000)
2008	Awarded funding from the National Science Foundation to study the globalization of R&D (\$285,000)
	Awarded research contract from the World Bank to study R&D activity and technology diffusion in Eastern Europe and Latin America (\$75,000)
	Awarded Sloan Foundation travel grant to conduct field research on Indian pharmaceutical firms
	(\$20,000)
2007	Awarded research contract from the World Bank to study technology absorption in Eastern Europe (\$22,000)
2004	Awarded funding from the Research Institute of Economy, Trade, and Industry (Japan) to conduct research on links between university science and industrial R&D in Japan (approximately \$20,000).
2003	Awarded National Science Foundation grant to study the impact of changes in intellectual property rights systems abroad on the activities of U.Sbased multinationals (\$124,000).
	Awarded research contract from the World Bank to study the reaction of U.Sbased multinationals to changes in intellectual property rights systems (\$54,000).
2002	Awarded Columbia Business School CIBE Research Grant (\$6,000).
2002	Awarded NBER research grant for the study of the globalization of industrial research and development, through the NBER-Sloan program on the Science and Technology Workforce (\$13,000).
2002	Awarded NBER Nonprofit Research Project Grant for further study of the impact of academic research
-00-	on industrial innovation (\$25,000).
2001	Awarded grant by the National Science Foundation (SRS Division) to study the impact of academic research on industrial innovation (\$93,000).
2000	IGA Junior Faculty Research Grant (\$4,000)
2000	University of California Faculty Research Grant (\$10,000)
2000	Energy Foundation grant to pursue a study of the implications of WTO accession for the Chinese automobile industry. Additional grants from General Motors, Toyota, and DaimlerChrysler (\$115,000)
1999	Awarded NBER Project on Industrial Technology and Productivity Program grant to study the impact of Japanese foreign direct investment on international knowledge spillovers (\$10,000)
1999	Awarded NBER Project on Industrial Technology and Productivity Program grant to study the impact of academic science on industrial innovation (\$10,000)

1999	IGA Junior Faculty Research Grant (\$3,000)
1999	University of California Faculty Research Grant (\$3,000)
1998	University of California Cooperative Research Program grant to investigate linkages between university
	science and private innovation. Additional research support from Institute of Governmental Affairs, UC-Davis. (\$70,213)
1998	Japan Foundation Center for Global Partnership grant to study the role of technology transfer in East
	Asian economic growth, with R. Wakasugi, E. Tomiura, E. Kim, and J. R. Chen. Additional support from the UC Institute on Global Conflict and Cooperation (IGCC) and the NBER. (\$83,882)
1998	Social Science Research Council grant to study the role of technology transfer in East Asian economic
	growth. (\$11,000)
1998	Awarded NBER Project on Industrial Technology and Productivity Program grant to study the impact of patent reforms on innovation in Japan, funded by the Sloan Foundation. (\$15,000)
1998	University of California Faculty Research Grant. (\$10,000)
1997	Awarded research contract to study and compare government funded research consortia
	in the U.S. and Japan, by the Advanced Technology Program, U.S. Department of Commerce,
	under the administration of the National Bureau of Economic Research. (\$169,100)
1997	Awarded NBER Project on Industrial Technology and Productivity Program grant to study research
	consortia, funded by the Sloan Foundation. (\$20,000)
1997	University of California Faculty Research Grant. (\$2,935)
1996	Awarded research contract to develop new international measures of innovative output by the OECD
	Science and Technology Directorate. (\$5,171)
1996	University of California New Faculty Research Grant for research on Japanese technology policy.
	(\$3,000)

HONORS AND AWARDS

2004	Appointed to the Daniel Stanton Associate Professorship in recognition of outstanding service, teaching,
2002	and scholarship at Columbia Business School.
2002	Awarded the Chazen Innovation Prize for Innovative Teaching in International Business at Columbia
	Business School.
2001	Awarded an Abe Fellowship by the Social Science Research Council.
2000	Thomas Mayer Distinguished Teaching Award, UC-Davis Department of Economics.
1998	Awarded UC-Davis Teaching Resource Center grant to conduct an internet videoconference linking
	UC-Davis undergraduates with experts at the World Bank, the IMF, and the Brookings Institution.
1995	Harvard University Certification for Teaching Excellence.
1994	Awarded Japan Foundation Graduate Research Fellowship to pursue dissertation research in Japan.
1994	Sumner Slichter Fellowship, Harvard Department of Economics.
1993	Awarded a research grant by the Reischauer Institute of Harvard University to pursue dissertation
research	
	at the Ministry of International Trade and Industry.
1993	Harvard University Teaching Fellowship.
1992	Awarded grant by the Reischauer Institute of Harvard University to pursue advanced Japanese language
	study at the Middlebury College Advanced Summer Japanese Program.
1991-1994	National Science Foundation Graduate Research Fellowship.
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EDITORIAL/REVIEW SERVICE

Associate Editor, Journal of International Economics, 2003-2011

Referee for American Economic Review, Quarterly Journal of Economics, Econometrica, Journal of Political Economy, Journal of International Economics, Rand Journal of Economics, Journal of Industrial Economics, Journal of Finance, Journal of Financial Economics, Journal of Econometrics, International Journal of Industrial Organization, R&DManagement, Journal of the Japanese and International Economies, Management Science, Annales d'Economie et de *Statistique*, the National Science Foundation, the Social Science and Humanities Research Council of Canada, the Israel Science Foundation, and the Austrian Science Fund (FWF).

CITIZENSHIP

United States of America

INVITED PRESENTATIONS

2018 NBER Innovation Policy and the Economic Conference, Washington, DC

World Trade Organization, Economics of IP and Development Workshop, Geneva, Switzerland

Max Planck Institute, Munich, Germany

Department of Economics, Ludwig Maximilian University, Munich, Germany

Fuqua School of Business, Duke University, Durham, North Carolina

2017 Conference on Japan's Economic and Security Policy in the Trump Era, University of Michigan, Ann Arbor, MI School of Global Policy and Strategy, UC San Diego, San Diego, CA

U.S.-Japan-China Trilateral Economic Relations under the Trump Administration, Japan Society, New York, NY Conference on Intellectual Property, Innovation, and Prosperity, Hoover Institution, Stanford University, Stanford,

Global Competition Review Conference, Stanford University, Stanford, CA

NBER Summer Institute, Innovation Workshop, Cambridge, MA

Conference on Prospects and Challenges for Sustained Growth in Asia, sponsored by the International Monetary

Fund, and the Peterson Institute for International Economics, Seoul, South Korea

College de France Trade and Innovation Conference, Paris, France.

2016 Tufts University, Department of Economics, Medford, MA

UCLA, Pharmaceutical Economics Seminar, Fielding School of Public Health, Los Angeles, CA

Northwestern University, Kellogg School of Management, Evanston, IL

NBER International Trade and Investment Program Meeting, Cambridge, MA

Stanford University, Freeman Spogli Institute, Stanford, CA

Peterson Institute for International Economics, Washington, DC

AIEA-NBER Conference on Innovation and Entrepreneurship, Tsinghua University, Beijing, China

SAIS, Johns Hopkins University, Washington, DC

Policy Forum on "Returns to Federal Investments in the Innovation System," the National

Academies of Sciences, Medicine, and Engineering, Washington, DC

Duke International Trade Workshop, Durham, N.C.

2015 India Conference on Innovation, Intellectual Property, and Competition (Plenary Speaker), Bangalore, India

Council of Economic Advisers, Executive Office of the President of the United States, Washington, DC

American University, Kogod School of Business, Washington, DC

University of Maryland, Smith School of Business, Washington, DC

NBER Productivity, Innovation, and Entrepreneurship Program Meeting, Cambridge, MA

NBER Summer Institute, Economics of IT and Digitization Conference, Cambridge, MA

2014 Haas School of Business, University of California, Berkeley, CA

Vanderbilt University, Nashville, TN

McDonough School of Business, Georgetown University, Washington, DC

NBER Conference on the Economics of Environmental Protection in China, Cambridge, MA

CMU-Peterson Institute Conference on Alternative Energy Innovation, Washington, DC

Technology Executive Committee, United Nations Climate Change Secretariat, Bonn, Germany

NBER International Trade and Investment Program Meeting, Palo Alto, CA

2013 University of Michigan Department of Economics and Ross School of Business, Ann Arbor, MI

Asia Pacific Innovation Conference, Plenary Speaker, Taipei, Taiwan

Government - University-Industry Research Roundtable on Research Globalization, the National Academies, Washington, DC

Annual Conference on U.S.-China Economic Relations, George Washington University, Washington, DC

The NBER Changing Frontier: Rethinking Science and Innovation Policy Conference, Chicago, IL

Queens University, Ontario, Canada

Peterson Institute for International Economics, Washington, DC

Federal Reserve Bank of Dallas

White House Workshop on State Owned Enterprises and International Trade, the White House, Washington, DC

2012 Asia Pacific Innovation Conference, Plenary Speaker, Seoul, South Korea

Academia Sinica, Taipei, Taiwan

HEC Workshop on Entrepreneurship, Paris, France

U.S. International Trade Commission, Washington, D.C.

The Changing Frontier: Rethinking Science and Innovation Policy Pre-Conference, NBER, Cambridge, MA

Yokohama Conference on Empirical Issues of International Trade and Firms, Tokyo, Japan

Research Institute of Economy, Trade, and Industry, Tokyo, Japan

NBER Globalization in an Age of Crisis Pre-Conference, Cambridge, MA

Research presentation to the United States Patent and Trademark Office, Washington, DC

NBER Productivity Program Spring Meeting, Cambridge, MA (Discussant)

NBER Summer Institute, International Trade and Investment Workshop (Discussant)

2010 American Economics Association Annual Meeting, Atlanta, GA (Discussant)

World Bank, Development Research Group, Washington, DC

International Growth Center Trade Conference, Columbia University, New York, NY

Georgetown University, Department of Economics, Washington, DC

Department of Economics, National University of Singapore, Singapore

NBER Entrepreneurship Program Meeting, Cambridge, MA

World Bank, Symposium on Intellectual Property and Development, Washington, DC

2009 NBER Japan Project Conference, Tokyo, Japan

NBER Productivity Lunch, Cambridge, MA

Conference on Global Trade sponsored by SMU and the Dallas Fed, Dallas, TX

FCEE, Universidad Catolica, Lisbon, Portugal

NBER Productivity Program Meeting, Cambridge, MA

CCC Conference, Faculty Seminar, Copenhagen, Denmark

Conference on Multinational Activity, Institute for World Economy, Kiel, Germany

Tsinghua University, School of Public Policy, Beijing, China

2008 London School of Economics, London, United Kingdom

WIPO Economics of Intellectual Property Conference, Seoul, South Korea

NBER Conference on Location of Biopharmaceutical Activity, Savannah, GA

World Bank Knowledge Economy Forum VII, Ancona, Italy

NBER Summer Institute, Workshop on Intellectual Property and the Economy, Cambridge, MA

Dupree College of Management, Georgia Institute of Technology, Atlanta, GA

Roundtable on Engineering Entrepreneurship Research Conference, Atlanta, GA (Discussant)

2007 Department of Economics, Stanford University, Stanford, CA

International Workshop on Knowledge Flows (Keynote Speaker), School of Business

and Management, Queen Mary, University of London, London, United Kingdom

Conference on Competitiveness of the Japanese Semiconductor Industry (Discussant),

sponsored by the National Institute for Science and Technology Policy (NISTEP), Tokyo, Japan

Rotman School of Business, University of Toronto, Toronto, Canada

Competition and Innovation Conference, UC-Berkeley, Berkeley, CA

Carnegie-Mellon University, Pittsburgh, PA

Department of Economics, Colgate University, Hamilton, New York Faculty of Economics, University of Adelaide, Adelaide, Australia

2006 Department of Economics, UC-Davis, Davis, CA

Graduate School of Management, UC-Davis, Davis, CA

International Business School, Brandeis University, Waltham, MA

Brookings Institution, Washington, D.C.

Political Economy of East Asia Conference, Yale University, New Haven, CN

NBER Productivity Program Meeting (Discussant), Cambridge, MA

NBER Summer Institute, Cambridge, MA

Carnegie-Mellon University, Pittsburgh, PA

Kellogg School of Management (Public Address), Northwestern University, Evanston, IL

Columbia University, New York, NY

Duke University, Durham, NC

University of California, San Diego, La Jolla, CA

NBER China Working Group Meeting (Discussant), Cambridge, MA

NBER Productivity Program Meeting, Cambridge, MA

Weatherhead School of Business, Case Western Reserve University, Cleveland, OH

NBER International Trade and Investment Program Meeting, Palo Alto, CA

Dupree College of Management, Georgia Institute of Technology, Atlanta, GA

Keio University, Tokyo, Japan

City University of Hong Kong

Hong Kong University of Science and Technology

Hong Kong University, School of Economics and Finance

Tsinghua University School of Economics and Management /Columbia Business School Joint Conference on Chinese Capital Markets, Beijing, People's Republic of China (Co-organizer, Presenter)

2004 Hokkaido National University, Japan

Hitotsubashi University, Institute for Innovation Research, Japan

NISTEP Conference on R&D and Innovation, Tokyo, Japan

NBER Productivity Program Meeting, Cambridge, MA

The University of Tokyo, Japan

Hong Kong University of Science and Technology

Intellectual Property Protection and International Trade Conference, City University of Hong Kong

NBER Summer Institute, Productivity Workshop (Discussant), Cambridge, MA

China Economic Transition Conference, Pittsburgh, PA

Empirical Investigations in International Trade 2004 Conference, Santa Cruz, CA

Columbia University, New York, NY

2003 NBER Summer Institute Productivity Program Meeting

Hitotsubashi University, Institute of Economic Research, Japan

Yokohama National University, Japan

University of Tokyo, Japan

International Economics Conference, Hitotsubashi University, Japan

NBER/CRIW/CREST Conference on R&D, Education, and Productivity, Paris

NBER-Sloan Project on Science and Engineering Workforce, May 2003 meeting, New York, NY

Duke University International Conference on Intellectual Property Rights, Durham, NC (Discussant)

Yale University, New Haven, CT

Columbia University, New York, NY

AEA Meetings, Washington, DC (Discussant)

2002 The World Bank, Washington, D.C.

The Department of Economics, UC-Berkeley, Berkeley, CA

The Kellogg School of Management, Northwestern University, Evanston, IL

The Department of Economics, University of Michigan, Ann Arbor, MI

The Department of Economics, University of Colorado, Boulder, CO

Boston University, Boston, MA

Harvard Business School, Boston, MA

NBER International Trade and Investment Program Meeting, Palo Alto, CA

2001 AEA Meetings, New Orleans, LA

Columbia Business School, Columbia University, New York, NY

NBER/Sloan Workshop on the Science Job Market, Washington, D.C.

Anderson Graduate School of Management, UCLA, Los Angeles, CA

West Coast Japan Economic Seminar, UC-Santa Cruz, Santa Cruz, CA

NBER Summer Institute, Productivity Workshop, Cambridge, MA

NBER Summer Institute, International Trade and Investment Workshop, Cambridge, MA

NBER Strategic Alliances Pre-conference

NYU Stern School of Business, New York, NY

Columbia-NYU Joint Law School Seminar on Strategic Alliances, New York, NY

NBER Productivity Lunch Workshop, Cambridge, MA

2000 AEA Meetings, Boston, MA

Faculty of Commerce, University of British Columbia, Vancouver, Canada

Department of Economics, UC-Berkeley, Berkeley, CA

Haas School of Business, UC-Berkeley, Berkeley, CA

NBER Summer Institute, Productivity Workshop, Cambridge, MA

Japan Economic Seminar, Columbia University, New York, NY

Department of Economics, Columbia University, New York, NY

Research Institute, Ministry of International Trade and Industry, Tokyo, Japan

Department of Economics, Cornell University, Ithaca, NY

Department of Economics, Brandeis University, Waltham, MA

Conference on University Entrepreneurship and Technology Transfer, Georgia Tech (Discussant)

1999 Berkeley-Stanford "IOfest" Conference, Haas School of Business, Berkeley, CA

West Coast Japan Economic Seminar, Fall Meeting, UCSD, San Diego, CA

Sloan Foundation Globalization Conference, Napa Valley, CA

Conference on the Role of Technology Transfer in East Asian Economic Growth (Organizer), Davis, CA

NBER Summer Institute, Productivity Workshop, Cambridge, MA

MITI Symposium "East Asian Economy and Japanese Industry at a Turning Point," Tokyo, Japan

Western Economic Association Meetings, San Diego, CA

UC-Irvine, Irvine, CA

NBER International Trade and Investment Spring Program Meeting, Cambridge, MA

Conference on New Entrants vs. Incumbents in Biotechnology, UC-Berkeley, Berkeley, CA (Discussant)

UC San Diego, La Jolla, CA

NBER Japan Project Spring Meeting, Palo Alto, CA

NBER Conference on Patent Systems and Innovation, Santa Barbara, CA

1998 NBER Summer Institute, Productivity Workshop, Cambridge, MA

UC-Santa Cruz, Santa Cruz, CA

NBER Summer Institute, International Trade and Investment Workshop, Cambridge, MA

NBER Conference on International Trade and Wages, Monterrey, CA (Discussant)

ATP Conference on the Economic Evaluation of Technological Change, Washington, DC (Co-organizer)

NBER East Asian Seminar on Economics, Conference in Osaka, Japan

1997 ASSA Meetings in New Orleans, LA

NBER Productivity Program Spring Conference, Cambridge, Massachusetts

NBER Japan Project Spring Conference, Cambridge, Massachusetts

Taipei International Conference on Efficiency and Productivity Growth, Taiwan

UCLA Conference on The Evolving Japanese Corporation, Los Angeles, California

NBER Japan Project Winter Conference, Tokyo, Japan

UC San Diego, La Jolla, California NBER Conference on R&D and Competition in High-Technology Industries (Discussant) Faculty of Commerce, University of British Columbia, Vancouver, BC, Canada Hitotsubashi University, Japan

- 1996 Strasbourg Conference on Economics and Econometrics of Innovation, Strasbourg, France University of Toronto, Toronto, Ontario, Canada Brandeis University, Waltham, Massachusetts
- 1995 University of Tokyo, Japan Hitotsubashi University, Japan Yokohama National University, Japan National Bureau of Economic Research, Cambridge, Massachusetts