

## **PHILIP E. AUERSWALD**

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**DATE OF BIRTH: 9/2/65**

**CITIZENSHIP: USA**

### **EDUCATION**

1999            Ph.D., Economics, University of Washington  
                  thesis: "Organizational Learning, Intrafirm Externalities, and Industry Evolution"  
1988            B.A., Yale University, *cum laude*  
                  major: Political Science (Comparative Politics)

### **CURRENT POSITION**

Jan 2003-present        Assistant Professor and Director of the Center for Science and Technology Policy  
                                  School of Public Policy, George Mason University

### **SELECTED TEACHING EXPERIENCE**

2001-2002            Adjunct Lecturer, Kennedy School of Government, Harvard University  
1993                 Instructor, University of Washington, Department of Economics

### **SELECTED EMPLOYMENT AND AFFILIATIONS**

2003-present        Research Associate, Belfer Center for Science and International Affairs, Kennedy  
                                  School of Government, Harvard University  
2002 -2003         Assistant Director, Science, Technology, and Public Policy (STPP) Program, Belfer  
                                  Center for Science and International Affairs, Kennedy School of Government,  
                                  Harvard University  
1999-2002         Fellow, Belfer Center for Science and International Affairs, Kennedy School of  
                                  Government, Harvard University  
1989-1991         Math Resource Teacher, District of Columbia Public Schools  
1988-1989         Research Associate, Elliot Berg Associates

### **PUBLICATIONS**

#### **Journal Articles**

"Entrepreneurship in the Theory of the Firm," Philip Auerswald (2007, *forthcoming*). *Small Business Economics*.  
"The Irrelevance of the Middle East," Philip Auerswald (2007). *The American Interest*, 2:5 (May/June), pp. 19-37.  
*Selected by the Council on Foreign Relations <www.cfr.org> as a "Must Read" article for 2007.*  
"The Myth of Energy Insecurity," Philip Auerswald (2006). *Issues in Science and Technology*, 22:4, pp. 65-70.  
"Edwin Mansfield, Technological Complexity, and the 'Golden Age' of U.S. Corporate R&D," Philip Auerswald and Lewis Branscomb (2005). *Journal of Technology Transfer*, 30:1/2, pp. 139-157.

**PUBLICATIONS (CONTINUED)**

“The Challenge of Protecting Critical Infrastructure,” Philip Auerswald, Lewis Branscomb, Todd LaPorte, and Erwann Michel-Kerjan (2005). *Issues in Science and Technology*, 22:1, pp. 77-83.

“Valleys of Death and Darwinian Seas: Financing the Invention to Innovation Transition in the United States,” Philip Auerswald and Lewis Branscomb (2003). *Journal of Technology Transfer*, 28, pp. 227-239.

“The Production Recipes Approach to Modeling Technological Innovation: An Application to Learning-by-doing,” Philip Auerswald, Stuart Kauffman, José Lobo, and Karl Shell (2000). *Journal of Economic Dynamics and Control*, 24:3, pp. 389-450.

**Authored Volumes**

*Taking Technical Risks: How Innovators, Executives and Investors Manage High-tech Risks*, Lewis Branscomb and Philip Auerswald (2001). Cambridge, MA: MIT Press. (Chinese edition published by CITIC Publishing House, Beijing PRC.)

*Selected by Booz Allen Hamilton’s Strategy & Business as a “Top 25 Business Book for 2000-2001.”*

**Edited Volumes**

*Financing Entrepreneurship*, Philip Auerswald and Ant Bozkaya, eds. (2007, *forthcoming*). Northampton, MA: Edward Elgar. In David Audretsch ed. series, *The International Library of Entrepreneurship*.

*Seeds of Disaster, Roots of Response: How Private Action Can Reduce Public Vulnerability*, Philip Auerswald, Lewis Branscomb, Erwann Michel-Kerjan, and Todd La Porte (2006). Cambridge, U.K.: Cambridge University Press.

**Book Chapters**

“The Simple Economics of Technology Entrepreneurship: Market Failure Reconsidered,” Philip Auerswald (2007, *forthcoming*), in David B. Audretsch, Isabel Grilo and Roy Thurik eds., *The Handbook of Entrepreneurship Policy*, Northampton, MA: Edward Elgar.

“Emerging Technologies for Change: Mobilizing Entrepreneurial Networks in Developing Countries,” Philip Auerswald (2007), in David Gibson, Manuel Heitor, and Alejandro Ibarra eds., *Connecting People, Ideas and Resources Across Communities*. Ashland, OH: Purdue University Press.

“Edwin Mansfield, Technological Complexity, and the ‘Golden Age’ of U.S. Corporate R&D,” Philip Auerswald and Lewis Branscomb (2005), in Albert N. Link and F.M. Scherer eds., *Essays in Honor of Edwin Mansfield: The Economics of R&D, Innovation, and Technological Change*. New York: Springer-Verlag.

“Start-Ups and Spin-offs: The Role of the Entrepreneur in Technology-Based Innovation,” Philip Auerswald and Lewis Branscomb (2003), in David Hart ed., *The Emergence of Entrepreneurship Policy: Governance, Start-Ups, and Growth in the Knowledge Economy*. Cambridge, U.K.: Cambridge University Press.

“Transitional Dynamics in a Model of Economic Geography,” Philip Auerswald and Jan Tai Tsung Kim (1995), in L. Nadel and D. Stein eds., *1993 Lectures in Complex Systems*. Santa Fe Institute Studies in the Sciences of Complexity, Lecture Volume VI, Addison-Wesley.

**Reports**

“Placing Innovation: A Geographical Information Systems (GIS) Approach to Identifying Emergent Technological Activity,” Philip Auerswald, Lewis Branscomb, Sean Gorman, Rajendra Kulkarni,

**PUBLICATIONS (CONTINUED)**

- and Laurie Schintler (2007). Report to the U.S. Department of Commerce, Advanced Technology Program/NIST GCR 06–902, May.
- “Understanding Private-Sector Decision Making for Early-Stage Technology Development,” Philip E. Auerswald, Lewis M. Branscomb, Nicholas Demos, and Brian K. Min (2005). Report to the U.S. Department of Commerce, Advanced Technology Program/NIST GCR 02–841A, September.
- “Between Invention and Innovation: Mapping the Funding for Early Stage Technology Development,” Lewis Branscomb and Philip E. Auerswald (2002). Report to the Advanced Technology Program/NIST #NIST GCR 02–841, November.

**Working Papers**

- “The Challenge of Protecting Critical Infrastructure,” Philip Auerswald, Lewis Branscomb, Todd LaPorte, and Erwann Michel-Kerjan (2005). Wharton Risk Management and Decision Process Center Working Paper # 05-11, October.
- “Agricultural Technology 110, Quzhou, China,” Yang Xuedong and Philip Auerswald (2003). Ash Institute for Democratic Governance and Innovation, Kennedy School of Government, Harvard University, Innovations in Technology and Governance (ITG) Project Case Study.
- “Valleys of Death and Darwinian Seas: Financing the Invention to Innovation Transition in the United States,” Philip Auerswald and Lewis Branscomb (2002), in Vicki Norberg-Bohm, ed., “The Role of Government in Energy Technology Innovation: Insights for Government Policy in the Energy Sector,” Belfer Center for Science and International Affairs, Harvard University, Working Paper October.
- “The Production Recipes Approach to Modeling Technological Innovation: An Application to Learning by Doing,” Philip Auerswald, Stuart Kauffman, José Lobo, and Karl Shell (1998). Cornell Center for Analytic Economics Working Paper 98-10.
- “The Production Recipes Approach to Modeling Technological Innovation: An Application to Learning by Doing,” Philip Auerswald, Stuart Kauffman, José Lobo, and Karl Shell (1998). Santa Fe Institute Working Paper 98-11-100.

**Documentary Compilations, Edited**

- Iraq 1990-2005: A Diplomatic History Through Documents* (2008, *forthcoming*), Philip Auerswald ed., Cambridge, U.K.: Cambridge University Press.
- Clinton’s Foreign Policy: A Documentary Record*, Philip Auerswald, Christian Duttweiler, and John Garofano eds. (2003). New York: Kluwer Law International.
- The Kosovo Conflict: a Diplomatic History Through Documents*, Philip Auerswald and David Auerswald eds., with a foreword by Senator Joseph R. Biden Jr. (2000). Cambridge, MA: Kluwer Law International.

**Op-ed and Commentary**

- “A Declaration of Independence from Oil Fears,” *San Francisco Chronicle*, July 15, 2007.
- “Why the Middle East Matters Less and Less,” *St. Petersburg Times*, June 24, 2007.
- “A Model to Eradicate False Gulf Between Doing Good and Doing Well,” (w/ Iqbal Qadir), *The Financial Times*, January 26, 2007.
- “Let’s Call an End to Oil Alarmism,” *International Herald Tribune*, January 23, 2007.
- “Calling an End to Oil Alarmism,” *Boston Globe*, January 23, 2007.

**JOURNAL EDITORSHIPS**

- 2006-present Founding co-editor, *Innovations: Technology | Governance | Globalization*, published by MIT Press
- 1991-2005 Co-Founder and Editor from 1995-2005, *Foreign Policy Bulletin*, currently published by Cambridge University Press.

**GRANTS AND CONTRACTS**

Co-Principal Investigator, “Private efficiency, public vulnerability: Developing sustainable strategies for protecting critical infrastructure,” grant from the Critical Infrastructure Protection Program, School of Law, George Mason University (core funding from the U.S. Department of Commerce, National Institute for Standards and Technology). 1/01/2004–06/31/2006: \$159K.

Principal Investigator, “Understanding Regional Innovative Capacity,” U.S. Department of Commerce, National Institute for Standards and Technology contract # SB1341-03-W-1235. 9/28/2004–3/28/2006: \$99K.

**CONSULTING**

- Commonwealth of Massachusetts (Department of Economic Development)
- National Institute of Standards and Technology (Economic Assessment Office, Advanced Technology Program)
- National Academy of Sciences (Board on Science, Technology, and Economic Policy)
- Oxford-Analytica
- University of Massachusetts (Donahue Institute)

**INVITED TALKS**

- 2007 Jul Schwab Social Entrepreneurship Colloquium, Said School of Business, Oxford University, Oxford, U.K.
- 2006 Nov Haniel-Research Seminar on "Marketing and Innovation Management," Institute of Entrepreneurial Studies and Innovation Management, Humboldt University, Berlin, Germany
- 2006 Oct Strategic Research Institute Conference on “Infrastructure Investing: A Growing Asset Class,” New York, NY
- 2006 Sep National Science Foundation, Colloquium on “Critical Infrastructures and Disaster-Resilient Communities,” Arlington, VA.
- 2006 Sep Woodrow Wilson International Center for Scholars, seminar series, Washington, DC.
- 2006 Sep School of International and Public Affairs, Columbia University, New York, NY.
- 2006 Sep Critical Infrastructure Roundtable of the National Academies, Symposium on “Critical Infrastructures and Disaster-Resilient Communities,” Washington, DC.
- 2006 Jun Swiss Re's Centre for Global Dialogue, workshop on “Risky Business? Innovation, Entrepreneurship, and Public Policy,” Rüschiikon, Switzerland.
- 2006 May The Wharton School, workshop on “Interdependent Security (IDS): Theory and Practice,” University of Pennsylvania, Philadelphia, PA.
- 2006 Apr Woodrow Wilson International Center for Scholars, seminar series on “Innovation Policy,” Washington, DC.

- 2006 Apr Department of Agricultural, Food & Resource Economics, seminar series, New Brunswick, NJ.
- 2005 Dec Ecole des Mines, workshop on “Public Policies for Research-Based Spin-offs,” Paris, France
- 2005 Oct Macroeconomics Seminar Series, Department of Economics, Cornell University, Ithaca, NY
- 2005 Jul School of Public Policy, graduate seminar, Tsinghua University, Beijing, China
- 2004 May National Academy of Sciences, Committee on Department of Defense Basic Research, Washington, DC
- 2004 Jan Association National de Recherche Technique (ANRT) conference on “Linking Research and Innovation,” Paris, France
- 2003 May Conference on the “Evaluation of Government Funded R&D Activities,” Vienna, Austria
- 2003 Mar French Ministry of Industry and U.S. National Academies conference on “Sustaining Innovation and Growth: Public Policy Support for Research and Development in France and the United States,” Paris, France
- 2002 Mar Conference Board, International Council on Management of Innovation and Technology, Richmond, VA
- 2001 Dec National Academy of Sciences, Board on Science, Technology, and Economic Policy (STEP), “Entrepreneurship Policy for the Future: Lessons from the United States and Sweden,” Stockholm, Sweden
- 2001 Nov Technology Transfer Society and National Institute on Disability & Rehabilitation Research (NIDRR), “State of Science in Technology Transfer,” Crystal City, VA
- 2001 Jun National Science Foundation, “Partnerships: Building a New Foundation for Innovation,” Arlington, VA
- 2001 Apr Center for International Development, Harvard University, “Global Governance of Technology: Meeting the Needs of Developing Countries,” Cambridge, MA

**WORKSHOP AND CONFERENCE PRESENTATIONS**

- 2007 Feb American Association for the Advancement of Science Annual Meeting, San Francisco, CA
- 2006 Jan International Symposium of the Regional Science Association International, Indian Institute of Management (IIM), Bangalore, India
- 2005 Nov Association for Public Policy and Management (APPAM) 2005 annual meeting, Washington, DC
- 2005 Sep Technology Transfer Society 2005 Annual Conference, “Advancing Innovation and Entrepreneurship,” Kansas City, MI
- 2003 Nov Association for Public Policy and Management (APPAM) 2003 annual meeting, Washington, DC
- 2004 Sep Technology Transfer Society 2004 Annual Conference, “Emerging Issues in Technology Transfer”
- 2003 Jun Seventh International Conference on Technology Policy and Innovation, Monterrey, Mexico
- 2002 Feb American Association for the Advancement of Science Annual Meeting, Boston, MA
- 2001 Jun Society for Computational Economics 7<sup>th</sup> International Conference, New Haven, CT
- 2000 Oct New England Complex Systems Institute, Second International Conference on Complex Systems, Nashua, NH
- 1998 Oct New England Complex Systems Institute, Second International Conference on Complex

- Systems, Nashua, NH
- 1997 Jul Society for Computational Economics, 3<sup>rd</sup> International Conference, Palo Alto, CA
- 1996 Jun Western Economic Association annual meeting, San Francisco, CA

**PROFESSIONAL SERVICE**

- 2004 Reviewer for National Science Foundation program on Human and Social Dynamics
- 2002-present Member of Research Team, National Research Council's Board on Science, Technology, and Economics Policy (STEP) review of the federal Small Business Innovation Research (SBIR) Program
- 2002 Jun Constituent Reviewer, National Institute for Disability and Rehabilitation Research (NIDRR) Summative Program Review, Rockville, MD
- 2002 Reviewer for National Research Council's Board on Science, Technology, and Economics Policy (STEP) report on "Government-Industry Partnerships for the Development of New Technologies: Summary Report"
- 2001 Reviewer for National Research Council's Board on Science, Technology, and Economics Policy (STEP) report on "Government-Industry Partnerships in Biotechnology and Information Technologies: New Needs and Opportunities"
- 2001 Mar Participant in Senate Committee on Small Business Forum on "Encouraging and Expanding Entrepreneurship: Examining the Federal Role," Washington, DC

Reviewer for *Complexity, Ecological Economics, Environment and Planning B, International Journal of Industrial Organization, Journal of Technology Transfer, Management Science*, MIT Press (books), Oxford University Press (books), *Research Policy, Security Studies*, and *Small Business Economics*.

**FELLOWSHIPS**

- 1999-2002 Postdoctoral Fellowship, Science, Technology and Public Policy Program, Kennedy School of Government, Harvard University
- 1997, summer Thorne Fund (Cornell University) grant to support dissertation research
- 1993, summer 1994, February and July-August: Research Visitor, Santa Fe Institute (SFI)

**COURSES TAUGHT**

Analytic Methods for Research on Science, Technology, and Innovation (doctoral seminar)  
Innovation Policy in the 21st Century: Technology, Governance, and Globalization  
Managerial Economics and Policy Analysis  
Markets and Market Failure  
Policy Analysis for Practitioners

**DOCTORAL ADVISEES**

- Sung Jae Kim (Member, Doctoral Committee; Ph.D. defense completed in Spring 2006)
- Mahmud Farooque (Member, Doctoral Committee; Ph.D. completed in Spring 2004)
- Jerald Coughter (Chair, Doctoral Committee; supervised research and reading)
- David Diamond (Member, Doctoral Committee; Member, Field Committee, 2006)
- Kadri Kallas (Member, Field Committee, 2007)

Paul Trampe (Member, Field Committee, 2007)

Gretchen Ehle (Member, Field Committee 2006; supervised research and reading)

Liza Parfomak (Member, Field Committee 2005)

Lorraine Cichowski (supervised research and reading)

Lynn Chapman (advisor)

Henry Vega (advisor)

**LANGUAGES**

French                      fluent

Spanish                    intermediate written and spoken

Chinese (Putonghua)    beginner spoken