

Margaret R. Taylor

Education

Carnegie Mellon University, Pittsburgh, PA

Ph.D., Engineering & Public Policy, 2001. *M.S., Engineering & Public Policy*, 1998.

Dissertation: “The Influence of Government Actions on Innovative Activities in the Development of an Environmental Control Technology”

Committee: David Hounshell, Edward Rubin, Linda Argote, Scott Farrow

International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria

Young Scientists Summer Program (YSSP), 1998

Columbia University, New York, NY

B.A., Double Major: Environmental Science (Geochemistry), American History, 1993

Experience

Goldman School of Public Policy, University of California (UC) Berkeley. January 2002-present.

Assistant Professor: specializing in policy analysis, environmental policy, and innovation.

California Center for Environmental Law and Policy, UC Berkeley. Spring 2008. Research fellow.

Center for the Study of Law and Society, UC, Berkeley. Spring 2008-present. Affiliated faculty member.

UC Berkeley Integrated Graduate Education Research and Training (NSF-IGERT) Program in Politics, Economics, Psychology, and Public Policy. Spring 2008-present. Affiliated faculty member.

Energy and Resources Group, UC Berkeley. Spring 2003-present. Affiliated faculty member.

Carnegie Mellon University, Pittsburgh, PA. 2001. Post-doctoral researcher.

RAND Corporation, Pittsburgh, PA. May 2000 to present. Occasional consultant with emphasis on science, technology, and environmental policy.

Dewey Ballantine, Washington, D.C. 1994-95. International trade, energy, and environmental policy issues. Capitol Hill experience.

Lamont-Doherty Earth Observatory, New York, NY. Summer 1993. Administered, taught, and supervised water sampling and chemical analysis.

Honors and Awards

Finalist, Prytanean Faculty Award, UC Berkeley. 2007, 2006, and 2005.

Best Dissertation, Academy of Management (AOM) Organizations and the Natural Environment Interest Group. 2002.

Best Dissertation, AOM Public and Nonprofit Division. 2001.

Junior Faculty COR Awards of almost \$3,000. 2002-2003 and 2003-2004.

UC Regent’s Junior Faculty Fellowship. Summer 2002.

Peccei Scholarship Award for Best Paper, IIASA. 1998. “Using U.S. and European Patents as a Measure of the Inventive Response to Environmental Policy Instruments in SO₂ Control.”

Stephen Lee Award for Outstanding Project Course, Engineering & Public Policy. 1997.
Carnegie Scholar, Top Women Entering Engineering/Science. Carnegie Mellon University.
1995-99.

Grants

Round Table, Berkeley Institute of the Environment, University of California, Berkeley.

Principal investigator, \$5,000 award. Spring 2007, Proposal dated September 2006.

Proposal: "Climate Change and Changes in Large Technical Systems." Funded weekly discussions by a multidisciplinary faculty cohort to explore new research area.

Round Table, Berkeley Institute of the Environment, University of California, Berkeley.

Principal investigator, \$10,000 award. Spring 2007, Proposal dated September 2006.

Proposal: "The Environmental Implications of Nanotechnology." Funded weekly discussions by a multidisciplinary faculty cohort to explore new research area.

California Energy Studies Program, University of California Energy Institute.

Principal investigator, \$35,000 award. July 2004-June 2005.

Proposal: "Wind energy innovation: How do individual and firm-based inventors differ in the technical merit of their inventions and innovative response to policy instruments."

California Climate Change Center, Michael Hanemann, P.I. CEC PIER Program.

Research leader, 2003 to 2006: "Technical Change and the Reduction of Greenhouse Gas Emissions in California."

Integrated Assessment of Global Climate Change Research, U.S.D.O.E. Office of Science.

Co-applicant and co-investigator, \$450,000 award. Fall 2000-3.

Proposal: "The Effect of Government Actions on Environmental Technology Innovation: Applications to the Integrated Assessment of Carbon Sequestration Technologies."

Donald A. Jones Center for Entrepreneurship, Carnegie Mellon University GSIA

Co-applicant and co-investigator, \$7,000 award. 1998. Report: "The Importance of Innovative Content in the Commercial Success of Individual Innovators."

Publications

Dunphy, K., **Taylor, M.R.**, and Banfield, J. "Environmental Risks of Nanotechnology: National Nanotechnology Initiative Funding, 2000-2004." *Environmental Science and Technology*, **40** (5), 1401-1407, March 1, 2006.

Yeh, S., Rubin, E.S., Hounshell, D.A., and **Taylor, M.R.** "Technology Innovations and Experience Curves for NO_x Control Technologies." *Journal of the Air & Waste Management Association*, **55**:1827-1838, December 2005.

Yeh, S., Rubin, E.S., Hounshell, D.A., and **Taylor, M.R.** "Uncertainties in Technology Experience Curves for Integrated Assessment Models." Accepted at the *International Journal of Energy Technology and Policy*, September 2005.

Taylor, M.R., Rubin, E.S., and Hounshell, D.A. "Control of SO₂ Emissions from Power Plants: A Case of Induced Technological Innovation in the U.S." *Technological Forecasting and Social Change*, **72**: 6, 697-718, July 2005.

Taylor, M.R., Rubin, E.S., and Hounshell, D.A. "Regulation as the Mother of Innovation: The Case of SO₂ Control." *Law & Policy*, **27**: 2, 348-78, April 2005.

Dahlin, K., **Taylor M.R.**, and Fichman, M. "Today's Edisons or Weekend Hobbyists: Technical Merit and Success of Inventions by Independent Inventors." *Research Policy*, **33**: 8, 1167-1183, October 2004.

- Riahi, K., Rubin, E.S., **Taylor, M.R.**, Schrattenholzer, L., and Hounshell, D. “Technological Learning for Carbon Capture and Sequestration Technologies.” *Energy Economics*, **26**: 4, 539-564, July 2004.
- Rubin, E.S., **Taylor, M.R.**, Yeh, S. and Hounshell, D.A. “Learning Curves for Environmental Technology and Their Importance for Climate Policy Analysis.” *Energy*, **29**, 1551–1559, June 2004.
- Rubin, E.S., Yeh, S., **Taylor, M.R.**, and Hounshell, D.A. “Experience Curves for Power Plant Emission Control Technologies.” *International Journal of Energy Technology and Policy*, **2** (1/2), 52-69, May 2004.
- Taylor, M.R., Rubin, E.S., and Hounshell, D.A. “The Effect of Government Actions on Technological Innovation for SO₂ Control.” *Environmental Science and Technology*, **37** (20), 4527-4534, October 15, 2003.

Reports

Reviewed Reports

- Taylor, Margaret, Greg Nemet, Michael Colvin, Loida Begley, Cyrus Wadia, and Tyler Dillavou. “Government Actions and Innovation in Clean Energy Technologies: The Cases of Photovoltaic Cells, Solar Thermal Electric Power, and Solar Water Heating.” *Report to the California Energy Commission, PIER Energy-Related Environmental Research*. CEC-500-2007-012. October 2007. Posted on CEC website February 21, 2008 (Final draft submitted October 2006).
- Bedsworth, L. and **Taylor, M.R.** “Pushing Technology when it Pushes Back: Learning from California’s Zero-Emission Vehicle Program.” California Economic Policy Report, Public Policy Institute of California. September 2007.
- Taylor, M.R., Thornton, D., Nemet, G., and Colvin, M. “Government Actions and Innovation in Environmental Technology for Power Production: The Cases of Selective Catalytic Reduction and Wind Power in California.” *Report to the California Energy Commission Public Interest Energy Research Program*. CEC-500-2006-053. June 2006. Final draft posted on CEC website http://www.energy.ca.gov/pier/final_project_reports/CEC-500-2006-053.html. (First draft “Emissions Abatement Technology Innovation and Diffusion,” June 2004).

Other Reports

- Taylor, M.R. “Government Actions, Innovation, and California’s Climate Policy.” Invited paper for senior California policy-makers and other AB32 stakeholders at the Carneros Innovation Dialogue hosted by Next10, *Sustainable California: Innovative Initiatives to Spur Investment in Clean Technologies*. October 17-18, 2007.
- Taylor, M.R., Rubin, E.S., and Nemet, G.F. “The Role of Technological Innovation in Meeting California’s Greenhouse Gas Emission Targets.” Chapter Three in Hanemann, M. and A. Farrell, eds. *Managing Greenhouse Gases in California*. Report prepared for the Energy Foundation and the Hewlett Foundation. 2006. 400 pp.
- Rubin, E.S., Hounshell, D.A., Yeh, S., **Taylor, M.R.**, Schrattenholzer, L., Riahi, K., Barreto, L., and Rao, S. (2004). *The Effect of Government Actions on Environmental Technology Innovation: Applications to the Integrated Assessment of Carbon Sequestration Technologies*. A Final Report Submitted to Dr. John C. Houghton, Office of Biological and Environmental Research, U.S. Department of Energy. Award No. DE-FG02-00ER63037. January 2004.
- Rubin, E.S., Hounshell, D.A., **Taylor, M.R.**, Yeh, S., Schrattenholzer, L., Riahi, K., Zhu, B., and Roehrl, R.A. (2001). *The Effect of Government Actions on Environmental Technology*

Innovation: Applications to the Integrated Assessment of Carbon Sequestration Technologies. A Progress Report Submitted to Dr. John C. Houghton, Office of Biological and Environmental Research, U.S. Department of Energy. Award No. DE-FG02-00ER63037. December 2001.

Farrell, A., **M.R. Taylor**, et. al. “The Regulation of SO₂ Emissions from Coal-Fired Boilers: A Case Study.” In *Environmental Regulation and Technology Innovation: Controlling Mercury Emissions from Coal-Fired Boilers*, ed. M. Tatsutani, P. Amar. Boston: NESCAUM, Sept. 2000.

Papers in Progress

Taylor, M.R. (2008). “Beyond Technology-Push and Demand-Pull: Solar Profiteers and other Lessons for Environmental Innovation Research from California’s Solar Policy.” *Energy Economics* (Submitted January 2007, “Minor” revise and resubmit received July 2007, Resubmission in February 2008).

Taylor, M.R. (2008). “Cap-and-Trade Programs and Innovation for Climate Safety.” Working Paper. Berkeley, CA. Note: Prepared for *Nature* “Commentary” section, which is currently oversubscribed and accepting no new submissions. To be revised and submitted to either *Issues in Science and Technology* or *Environmental Science and Technology*, Spring 2008.

Taylor, M.R. (2007). “The Dynamics of Innovation and Cap-and-Trade Programs.” Working Paper. Berkeley, CA. Submitted to *Science*, November 2007. To be revised and submitted to *Journal of Environmental Economics and Management*, Spring 2008.

Taylor, M.R. Nemet, G., and Thornton, D. (2008). “Technological Innovation for Climate Change and Transaction Cost Economics.” Working Paper. Berkeley, CA. To be submitted to the *Journal of Policy Analysis and Management* in Spring 2008. Revised version of “The Interaction between Policy and Innovation in Clean Energy Technologies” from AEA presentation in 2006.

Taylor, M.R. and Barandiaran, J. (2008) “Nanotechnology in California and the European Union.” Working Paper. Berkeley, CA. To be submitted to *Journal of Comparative Policy Analysis*, late Spring 2008.

Rabinovici, S., Barandiaran, J., and **Taylor, M.R.** (2008). “Report Card on the Berkeley Nanoscale Materials Health & Safety Ordinance.” Working Paper. Berkeley, CA. To be submitted to *Nature Nanotechnology* “Commentary” section, late Spring 2008.

Wilson, E., Bedsworth, L., and **Taylor, M.R.** (2008). “Base-Load Power in a Carbon Managed World: Risks and Tradeoffs of Carbon Capture and Sequestration and Nuclear Power.” Working Paper. Berkeley, CA. Potential submission to *Risk Analysis*.

Taylor, M.R., Bush, N., and Thornton, D. (2008). “Individual Inventors and Clean Tech: The Case of Wind Power.” Working Paper. Berkeley CA.

Bedsworth, L. and **Taylor, M.R.** (2007). “Pushing Technology when it Pushes Back: Learning from California’s Zero-Emission Vehicle Program.” Working Paper. Berkeley, CA.

Taylor, M.R. (2007). “Government Actions, Innovation, and California’s Climate Policy.” Working Paper. Berkeley, CA.

Hanemann, M., **Taylor, M.R.**, Bush, N. (2007). Finding a Common Goal through Coal. Working Paper. Berkeley, CA. To be submitted to *Issues in Science and Technology*, Spring 2008.

Rabinovici, S., Barandiaran, J., and Taylor, M.R. (2007) *Local Disclosure Ordinances as Regulatory Catalysts: Early Insights from the Berkeley, California Nanoscale Materials Ordinance*. White Paper prepared for Northern California Chapter of the Society for Risk Analysis, October 2007.

Book in Progress

Taylor, M.R. (2008). *Innovation for the Environment: What Policy and Industrial Experience mean for Defeating Climate Change*. Interest from MIT Press and contract offer from Resources for the Future Press.

Presentations

“*Environmental Policy on the Cutting-Edge: Coping with the Risks of Nanotechnology*.” with Barandiaran, J. Presentation and Working Paper prepared for the EU-California Regulatory Cooperation Project Workshop, UC Berkeley. February 22, 2008.

“*Invention and Cap-and-Trade Programs*.” UCEI Center for the Study of Energy Markets (CSEM) Seminar. December 7, 2007.

“*Clean Tech Overview*.” Guest lecture, Climate Law Class, UC Berkeley. November 6, 2007.

Discussant, guest panel on Nano and the Environment, The Business of Nanotechnology class, UC Berkeley Haas School of Business. November 2007.

“*Local Disclosure Ordinances as Regulatory Catalysts: Early Insights from the Berkeley, California Nanoscale Materials Ordinance*.” Rabinovici, S., Barandiaran, J., and **Taylor, M.R.**

- Co-author (Javiera Barandiaran) presented, Nanotechnology and Occupational Health and Safety Conference, UC Santa Barbara Center for Nanotechnology in Society, November 17, 2007.
- Co-author (Sharyl Rabinovici) presented, *Northern California Chapter of the Society for Risk Analysis Fall Symposium, Berkeley, CA, October 4, 2007*. Tied for best paper.
- Co-author (Sharyl Rabinovici) presented, IGERT Program in Politics, Economics, Psychology, and Public Policy Workshop, Berkeley, CA, September 26, 2007.

“*Government Actions, Innovation and California’s Climate Policy*.” Presentation to senior California policy-makers and other AB32 stakeholders at the Carneros Innovation Dialogue hosted by Next10, “Sustainable California: Innovative Initiatives to Spur Investment in Clean Technologies.” October 18, 2007.

“*Policy and Climate-Friendly Innovation*.”

- Lair of the Bear, July 22 & 24, 2007.
- Carl Linnaeus Tercentenary Commemoration Symposium, UC Berkeley. May 17, 2007.

“*Cap-and-Trade Programs and Climate-Friendly Innovation*”

- Testimony to Environmental Justice Committee advising the California Air Resources Board on AB32 implementation. March 15, 2007.
- Center for Information Technology Research in the Interest of Society (CITRIS) Research Exchange, UC Berkeley, March 14, 2007.

“*Government Actions and Innovation in Clean Energy Technologies*.”

- Invited presentation at Stanford Environmental Workshop, March 5, 2007
- Invited presentation at H University of Minnesota Hubert H. Humphrey Institute of Public Affairs, Minneapolis, Minnesota. November 1, 2006.

“*Cap and Trade Programs and Innovation*.” Berkeley Conference on Cap and Trade as a Tool for Climate Change Policy: Design and Implementation. February 23, 2007

“*Solar Policy and Technology/Market Outcomes*.” Invited Speaker, Photovoltaics Technology Development & Policy Workshop. Climate Policy Project of the Socio-Economic Research Center at the Central Research Institute of the Electric Power Industry (CRIEPI) in Japan. December 14, 2006.

- “Innovation for the Environment: What Policy and Business Experience mean for Defeating Climate Change.”* Invited Speaker, Climate Policy Project of the Socio-Economic Research Center at the Central Research Institute of the Electric Power Industry (CRIEPI) in Japan. December 12, 2006.
- Discussant, Panel on Regional Economic Development and Science and Technology Policy.* APPAM Annual Meeting, Madison, Wisconsin. November 4, 2006.
- “California Driving Change: State Influence on the Development of Clean Car Technology.”* Co-author (Louise Bedsworth) presented, APPAM Annual Meeting, Madison, Wisconsin. November 2, 2006.
- “Solar Policy History: An Overview of Government Actions in the U.S., Germany, and Japan.”* Guest lecture, UC Berkeley. October 24, 2006.
- “Policies to Promote Innovation and Investment in Clean Technology.”* Climate Change Policy Workshop in State Capitol Building, Sacramento, CA. May 19, 2006.
- “Government Actions and Innovation in Clean Energy Technologies: Lessons from Case Studies.”* Workshop on Technological Change and the Environment, March 25-26, 2006 at Dartmouth College. Sponsored by the Department of Energy and Dartmouth College. Organized by Karen Fisher-Vanden.
- After dinner remarks.* Goldman School of Public Policy Environmental Policy Group Second Annual Student-Faculty-Alumni Dinner. March 17, 2006.
- “The Path to Attaining Clean Air in California.”* UC Berkeley Conference on California and the Future of Environmental Policy. Presentation on Air Pollution Panel. February 16, 2006.
- “The Interaction between Policy and Innovation in Clean Energy Technologies.”* Presented with Greg Nemet at the USAEE/IAEE Session, Annual Meeting, Allied Social Science Associations. Boston, MA, January 7, 2006.
- “Policy and Innovation in Environmental Technology: Lessons for Climate Change.”*
- Science, Technology, and Engineering Policy Group. Kickoff seminar. December 1, 2005.
 - Berkeley Innovation Seminar, November 9, 2005.
 - 2nd Annual Climate Change Research Conference and 1st Scientific Conference, West Coast Governors’ Global Warming Initiative, Sacramento, CA. September 15, 2005.
- “Government Actions and Innovation in Clean Energy Technologies: Lessons from Case Studies.”* U.S.E.P.A. Environmental Technology Council Brown Bag Series (teleconference with national attendance). October 6, 2005.
- “Public Policy and Innovation: Cases of Environmental Technologies for Power Production.”* UC Berkeley workshop on “Energy and Sustainable Growth in California: New Horizons for Innovation and Adoption.” Sponsored by the Center for Sustainable Resource Development and the Giannini Foundation. April 22, 2005.
- “The GSPP Philosophy on Teaching Writing and Public Speaking Skills to MPP Students.”* Roundtable on Teaching Oral and Written Communication Skills to Policy Students. APPAM Annual Meeting, Atlanta, Georgia. October 28-30, 2004.
- “Policy and Innovation in Environmental Technologies for Power Production: The Cases of FGD for SO₂ Control, SCR for NO_x Control, and Wind Power”*
- GSPP Center for Environmental Public Policy Seminar. April 20, 2005.
 - Guest Lecture, Science and Public Policy class at GSPP. March 3, 2005.
 - APPAM Annual Meeting, Atlanta, Georgia. October 28-30, 2004.
 - University of California Energy Institute Seminar, October 2004.

- Poster presentation, Gordon Research Conference on Science and Technology Policy, Big Sky, Montana. August 15-20, 2004.
- “*Characterizing Trends in Technological Innovation for Pollution Control.*” National Academy of Sciences, National Research Council Committee on the Effects of Changes in New Source Review Programs for Stationary Sources of Air Pollutants. July 14, 2004.
- “*Policy and Innovation in Environmental and Renewable Energy Technologies.*” Invited presentation at the Electric Power Research Institute (EPRI) to Chauncy Starr and Rick Rudman. July 7, 2004.
- “*Policy, Diffusion, and Experience Curves.*” Annual Meeting of the International Energy Workshop. Jointly organized by EMF/IEA(ETSAP)/IIASA. Paris, France. June 22-24, 2004.
- “*Emissions Abatement Technology Innovation and Diffusion.*” First Annual Conference on Climate Change, Sacramento, CA. June 9-10, 2004.
- “*Policy Analysis and Internship Opportunities for Board Member Involvement in the GSPP Core Curriculum.*” Board of Advisors, Goldman School of Public Policy. May 2004.
- “*The Effect of Government Actions on Innovation in SO₂ Control Technology.*”
- Energy and Resources Group Seminar, October 29, 2003.
 - Open Meeting of the Human Dimensions of Global Change. Montreal, Canada. October 2003.
- “*Collaboration in a Pollution Control Research Network Influenced by Repeated Government Actions.*” Academy of Management Annual Meeting, Seattle, WA. August 2003.
- “*The Effect of Government Actions on Innovation in Environmental Control Technology.*” Corporate Environmental Performance & the Effectiveness of Government Interventions Workshop, June 2003.
- “*The Technical Merit and Success of Inventions by Independent Inventors.*” Dahlin, K., **M.R. Taylor**, M. Fichman.
- Co-author (Kristina Dahlin) presented, International J. A. Schumpeter Society, 10th ISS Conference. *Innovation, Industrial Dynamics and Structural Transformation: Schumpeterian Legacies.* Milan, Italy. June 2004.
 - Co-author (Kristina Dahlin) presented, Center for European Economic Research Workshop on Empirical Economics of Innovation and Patenting. Mannheim, Germany. March 2003.
- “*Experience Curves for Environmental Technology and their Relationship to Government Actions.*” Rubin, E.S., **M.R. Taylor**, S. Yeh and D.A. Hounshell
- Co-author (Ed Rubin) presented, Joint EU EXTOOL-IEA EXCETP6 Workshop on Experience Curves: A Tool for Energy Policy Analysis and Design. Paris, France. January 2003.
 - Co-author (Ed Rubin) presented, 6th International Conference on Greenhouse Gas Technologies. Kyoto, Japan. October, 2002.
- “*Effect of Government Actions on Learning Rates for Environmental Technologies.*” International Energy Workshop, Stanford, CA. June 2002.
- “*The Effect of Government Actions on Technological Innovation for SO₂ Control.*” Featured luncheon speaker. U.S.EPA/EPRI/DOE Combined Utility Air Pollution Control Symposium, August 2001.
- “*The Influence of Government Actions on Technological Change in Sulfur Dioxide Control.*”
- Board of Advisors, Goldman School of Public Policy. May 2002.

- Innovation Seminar, Haas School of Business. April 2002.
- Goldman School of Public Policy, University of California, Berkeley. February 2001.
- RAND Corporation. Washington, D.C. March 2000.
- Yale School of Management. New Haven, CT. March 2000.
- The Maxwell School, Syracuse University. Syracuse, NY. January 2000.
- Woodrow Wilson School, Princeton University. Princeton, NJ. November 1999.

“*Innovative Content as a Predictor of Success for Individual Inventors.*”

Dahlin, K., **M.R. Taylor**, and M. Fichman. Co-author (Kristina Dahlin) presented, the Academy of Management Annual Meeting, Toronto, CA. August 2000.

“*Using Patents to Measure Inventive Response to Environmental Policy Instruments.*”

Symposium on Measuring Tech. Change, AOM Annual Meeting, San Diego, CA. August 1998.

“*Innovation in Environmental Technology*”

- NSF Integrated Study of Human Dimensions of Global Change Center mtgs. CMU. 1997-99
- Greening of Industry Network International Conference. U.C. Santa Barbara. November 1997.

Media

San Francisco CBS Channel 5 News at 11:00 pm. Expert in story on use of nanoparticles in commercial friers to reduce "bad" fats. Sun. Nov. 19, 2006.

Pelley, J. “California law sends signal to coal power.” *Environmental Science and Technology Policy News*. October 24, 2006.

Dornhelm, R. “New test promises safe fish faster.” *Marketplace* (on NPR), Mon. July 24, 2006.

San Francisco FOX Channel 2 News at 10 pm. Expert in story on heatwave. Tues. June 20, 2006.

San Francisco CBS Channel 5 News at 5:00 pm. Expert in story on nanoparticles in sunscreens with HealthWatch reporter Kim Mulvihill, M.D. Tues. May 16, 2006.

Peralta Colleges Television (PCTV). Panelist in three segments of election night coverage. *Comcast Cable Channel 27 in Alameda and Berkeley/Channel 28 in Emeryville, Oakland and Piedmont*. Tuesday, November 2, 2004, 8:00-11:00 pm.

Bowman, C. “Are power plants crying wolf over lawsuit?” *Sacramento Bee* (Front page), Mon., August 2, 2004.

Krasny, M. “U.S. Losing Dominance in Science.” Guest with Daniel Greenberg and Stephen D. Nelson. *KQED Forum*, Tues., May 4, 2004, 9:00 am.

Johnson, J. “Getting to Clean Coal.” *Chemical and Engineering News* (Cover story), Vol. 82, No. 8. February 23, 2004.

Teaching Experience

Creator and Instructor, Environment and Technology from the Policy and Business Perspective. GSPP. Fall 2004, 2006-07. Adv. Undergrad., grad. student environmental policy course. Course credit counts toward new UC Berkeley graduate certificate program, “Engineering and Business for Sustainability,” funded by Luce Foundation.

Co-Instructor, Introduction to Policy Analysis. GSPP. Spring 2002-07.

Graduate student project course emphasizing teamwork and real-world policy analysis.

Instructor, Advanced Policy Analysis. GSPP. Spring 2004-05, 2007.
 Graduate student seminar emphasizing independent policy analyses for individual clients.

Creator and Instructor, “Clean Energy Technology and Innovation.” Eighteen hours of instruction for upper-level executives in Mexico’s Federal Electricity Commission (CFE). January 19th-21st, 2006. Mexico City, Mexico.

Co-Instructor, Introduction to Public Policy Analysis. GSPP. Fall 2002.
 Upper-level undergraduate course in theoretical & practical aspects of public policy.

Faculty Supervisor, DeCal Course, “The West Wing” and Public Policy. GSPP 2003-05.

Graduate, Summer Faculty Technology Program. U.C. Berkeley. Summer 2002.

Teaching Development Program Graduate, Eberly Center for Teaching Excellence, CMU. Fall 1999. Involved classroom teaching assessment and training.

Head Teaching Assistant, Introduction to Engineering & Public Policy, CMU. Spring 1999.
 Course on safety, environmental, and energy issues pertaining to automobiles.

Manager, Project Course: “Reclamation & Sustainable Development of a Brownfield.” Spring 1997. Co-taught adv. Undergrad. and grad. students; helped write & edit 200+ page report.

CD-ROM Creator, Reformulated Gasoline for Primary School Students. Spring 1996.
 Created educational software about engineering and environmental issues of gasoline.

Advising

PhD qualifying examination committee for Carla Peterman, Energy and Resources Group, UC Berkeley. Qualifying examination February 2008.

PhD committee for Greg Nemet, Energy and Resources Group, UC Berkeley. Completed Spring 2007, now Assistant Professor at University of Wisconsin, Madison. *Policy and innovation in low-carbon energy technologies*. Qualifying examination September 2005. Also served on Master’s committee, Completed Spring 2004.

PhD committee for Mark Philbrick, Environmental Science, Policy and Management, UC Berkeley. Prospectus title: *Nanotechnology Policy: Bridging the Governance Gap*.” Qualifying examination Spring 2007.

PhD committee for Aaron P. Hurst, Electrical Engineering. *Sequential Optimization for Low Power*. Qualifying examination May 2007.

PhD qualifying examination committee for Nihar Shah, Mechanical Engineering, UC Berkeley. Qualifying examination November 2006.

Master’s committee for Cyrus Wadia, Energy and Resources Group, UC Berkeley. Completed Spring 2006. *Can We Build A Better Solar Cell With Nanocomposites?*

PhD committee for Ayyana Chakravarthula, Mechanical Engineering, UC Berkeley. Completed Fall 2005. *Nano-scale mechanical properties of biomedical polymers, and, A case study of the medical device approval process*.

Master’s committee for Malini Ranganathan, Energy and Resources Group, UC Berkeley. Completed Spring 2005. *Can agricultural cooperatives become energy producers too? Challenges and prospects for efficient cogeneration in India’s cooperative sugar sector*.

PhD committee for Jennifer Stokes, Civil and Environmental Engineering, UC Berkeley. Completed May, 2004. *Life-Cycle Assessment of Alternative Water Supply Systems in California*.

PhD qualifying examination committee for Joanna Lewis, Energy and Resources Group, UC Berkeley. Qualifying examination Fall 2003.

Internal and External Service, Proposal Submissions

- Participant in the Searle Center Research Roundtable on Alternative Energy, to be held at Northwestern University School of Law, April 17-18, 2008.
- Proposed Associate Director, Proposal to UC Toxic Substances Research & Training Program, February 2008: “Anticipatory and Preventive Toxicology Lead Campus.” (PI: Chris Vulpe, Nutritional Sciences & Toxicology, UC Berkeley).
- Participant in NSF Proposal, February 2008: “Collaborative Research: Managing Technological Change at the Intersections of Urban Infrastructure Systems.” (PI: Patrick Gurian, Drexel University).
- Participant in NSF Pre-Proposal, December 2007: “CEIN: Center for Predicting the Interactions of Nanomaterials with the Environment (CPINE): A Pre-Proposal Submitted in Response to the RFP for a Center for the Environmental Implications of Nanotechnology.” (PI: Vicki Colvin, Rice University). Invited back for full proposal.
- Co-PI, NSF IGERT Proposal, September 2007: “Nanotechnology and Sustainable Development” (PI: Connie Chang-Hasnain, Electrical Engineering and Computer Science, UC Berkeley). Won UC Berkeley competition, pre-proposal given high priority by NSF, not ultimately successful.
- Advisory Board Member, Fall 2007-present. NSF Grant: “State Difference in Energy Deployment,” (P.I. Elizabeth Wilson, University of Minnesota).
- Co-investigator, proposal to California Air Resources Board, October 2007: “Implementing the Low Carbon Fuel Standard.” (PI Alex Farrell, Energy Resources Group, UC Berkeley).
- Co-PI, pre-proposal to Energy Biosciences Institute, June 2007: “Policy, Entrepreneurship, and the Development of Biofuels Markets. (Co-PI. Peter Menell, Boalt Law School, UC Berkeley).
- Participant in original proposal to the CPUC to start the California Climate Institute, April 2007. Chair of leadership team for the “California Laboratory for Climate Response.”
- Participant in successful proposal to the Luce Foundation: “Sustainable Engineering through Green Design, Manufacturing, and Social Infrastructures.” Awarded November 2006.
- Participant in successful proposal for a Working Group funded through the Berkeley Institute of the Environment: “New Transportation Fuels.” Awarded September 2006.
- Participant, NSF IGERT Proposal, March 2006: “Technical and Behavioral Foundations of Energy Efficient Consumption” (PI: Paul Wright, Mechanical Engineering, UC Berkeley; with UC Merced).
- Participant, Proposal to California Clean Energy Fund (CalCEF), December 2005: “University of California Berkeley & Merced Center for Energy Efficiency Research.” (PI: Paul Wright, Mechanical Engineering, UC Berkeley).
- Organizer. Panel “Links Between Technical Innovation and Climate Policy.” APPAM Annual Meeting, Atlanta, Georgia. October 28-30, 2004.
- Admissions Committee, GSPP 2004.
- Committee on the Impact on the GSPP Curriculum of Increased Enrollment, GSPP 2002-03.
- Active in UC Berkeley Strategic Initiatives on Environment, Society and Technology. Fall 2002.
- Co-author, Luce Foundation Proposal on the GSPP *Environmental Policy and Implementation Program*. Spring 2002.

Reviewer

- *Ecological Economics*
- *Energy Economics*
- *Environmental Science and Technology*
- *Energy Journal*
- National Science Foundation
- Environmental Protection Agency
- University of Michigan Graham Institute's Environmental Sustainability Multidisciplinary Research Program

Other

Invitation to participate on a panel entitled "Does It Matter (to Science/Technology) Who Wins the Mid-Term U.S. Congressional Elections?" at the "World Technology Summit" sponsored by the World Technology Network in San Francisco. Nov. 3, 2006.

Collaborator with the Climate Policy Project of the Socio-Economic Research Center at the Central Research Institute of the Electric Power Industry (CRIEPI) in Japan. Summer 2006-current.

Collaborator with the Sonoma County Water Agency on sustainability projects. May 2006-2007.

Invitation to national workshop on nanotechnology governance, Michigan State University, September 2006.

Invitation to be a speaker at a funder's briefing at the California Endowment on emerging technologies including nanotechnology. September 2006.

Invitation to participate as an expert in a day-long workshop at the Institute for the Future to map the boundary between innovative economic practices and emerging ecological and biological knowledge.

Invitation to be a speaker at a program on the impacts of nanotechnology at the San Francisco Exploratorium. August 2006.

Organizer. Co-Sponsored Talk by Mark Trexler for the GSPP Center for Environmental Public Policy and the Climate Policy Seminar. November 18, 2004.

Discussant, *Population and Environment* graduate seminar. Agricultural and Resource Economics. November 20, 2002.