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Education: Ph.D., Economics, Cornell University, 1973
M.A., Economics, Cornell University, 1972
B.A., Economics, Summa cum laude, Bryn Mawr College, 1969

Professional Experience:

2016 - Faculty Associate, Maryland Population Research Center, University of Maryland
2012 - Chair, Department of Economics, University of Maryland
2011 - Distinguished University Professor, University of Maryland
2009 - Senior Fellow, Resources for the Future
2007 - Research Associate, National Bureau of Economic Research
1996-2008, 1987-90 University Fellow, Resources for the Future
1993 - 2006 Lead Economist, Research Department, World Bank
1993 Visiting Professor, Duke University Law School
1990 - 1993 Senior Fellow, Resources for the Future
1992 - Professor of Economics, University of Maryland
1982-1992 Associate Professor, Economics, University of Maryland
1980-1982 Assistant Professor, Economics, University of Maryland
1978-1980 Assistant Professor, Economics, University of Southern California
1973-1978 Assistant Professor, Economics, University of California, Riverside

Fields of Specialization:

Environmental and Natural Resource Economics
Economics of Health and Safety Regulations
Energy and Transportation Economics

PUBLICATIONS

BOOKS

Valuing Environmental Benefits: The Selected Essays of Maureen Cropper. Cheltenham, UK: Edward Elgar Publishers, 1999.

JOURNALS AND CHAPTERS IN BOOKS

1. "A State Preference Approach to the Precautionary Demand for Money," **American Economic Review** 66 (1976), 388-394.
2. "Regulating Activities with Catastrophic Environmental Effects," **Journal of Environmental Economics and Management** 3 (1976), 1-15.
3. "Health, Investment in Health, and Occupational Choice," **Journal of Political Economy** 85 (1977), 1273-1294.
4. "The Optimal Consumption of a Depletable Natural Resource: An Elaboration, Correction and Extension," (with Milton Weinstein and Richard Zeckhauser) **Quarterly Journal of Economics** 92 (1978), 337-344.
5. "The Optimal Extinction of a Renewable Natural Resource," (with Dwight Lee and S.S. Pannu), **Journal of Environmental Economics and Management** 6 (1979), 341-349.
6. "Inter-city Wage Differentials and the Value of Air Quality," (with A.S. Arriaga-Salinas), **Journal of Urban Economics** 8 (1980), 236-254.
7. "Pollution Aspects of Nuclear Energy Use," **Journal of Environmental Economics and Management** 7 (1980), 334-352.
8. "Measuring Benefits from Reduced Morbidity," **American Economic Review Proceedings** 71 (1981), 235-240.
9. "The Value of Urban Amenities," **Journal of Regional Science** 21 (1981), 359-374.
10. "Economic Incentives for Pollution Control," in **Lecture Notes, American Mathematical Society Short Course on Environmental and Natural Resource Mathematics**, American Mathematical Society, Providence, R.I., 1985.
11. "A Note on the Extinction of Renewable Resources," **Journal of Environmental Economics and Management** 15 (1988), 64-70.
12. "Families and the Economics of Risks to Life," (with Frances G. Sussman), **American Economic Review** 78 (1988), 255-260.
13. "On the Choice of Functional Form for Hedonic Price Functions," (with Leland B. Deck and Kenneth E. McConnell), **Review of Economics and Statistics** 70 (1988), 668-675.

14. "Valuing Future Risks to Life," (with Frances G. Sussman), **Journal of Environmental Economics and Management**, 19 (1990), 160-174.
15. "Discounting and the Evaluation of Life-Saving Programs," (with Paul R. Portney), **Journal of Risk and Uncertainty**, 3 (1990), 369-380.
16. "Wasteful Commuting: A Re-examination," (with Patrice L. Gordon), **Journal of Urban Economics**, 29 (1991), 2-13.
17. "Valuing Environmental Health Effects," (with A.M. Freeman III) in John Braden and Charles Kolstad (eds.) **Measuring the Demand for Environmental Commodities**. Amsterdam: North-Holland, 1991.
18. "Discounting Human Lives," (with Sema K. Aydede and Paul R. Portney), **American Journal of Agricultural Economics**, 73 (1991), 1410-1415.
19. "The Determinants of Pesticide Regulation: A Statistical Analysis of EPA Decisionmaking," (with William N. Evans, Stephen J. Berardi, Maria M. Ducla-Soares and Paul R. Portney), **Journal of Political Economy**, 100 (1992), 175-198.
20. "The Effect of Information on Health Risk Valuations," (with Alan J. Krupnick), **Journal of Risk and Uncertainty**, 5 (1992), 29-48.
21. "Rates of Time Preference for Saving Lives" (with Sema K. Aydede and Paul R. Portney), **American Economic Review Proceedings** 82 (1992), 469-472.
22. "Environmental Economics: A Survey," (with Wallace E. Oates), **Journal of Economic Literature**, 30 (1992), 675-740.
23. "Pesticide Regulation and the Rule-making Process," (with William N. Evans, Stephen J. Berardi, Maria M. Ducla-Soares and Paul R. Portney), **Northeastern Journal of Agricultural and Resource Economics**, 21 (1992), 77- 82.
24. "The Estimation of Consumer Preferences for Attributes: A Comparison of Hedonic and Discrete Choice Approaches" (with Leland Deck, Nalin Kishor, and Ted McConnell), **Review of Economics and Statistics** 75 (1993), 225-232.
25. "Preferences for Life-Saving Programs: How the Public Discounts Time and Age," (with Sema K. Aydede and Paul R. Portney), **Journal of Risk and Uncertainty** 8 (1994), 243-265.
26. "The Interaction of Population Growth and Environmental Quality," (with Charles Griffiths), **American Economic Review Proceedings** 84 (1994), 250-254.
27. "Economic and Health Consequences of Pesticide Use in Developing Country Agriculture: Discussion," **American Journal of Agricultural Economics** 76 (1994), 605-607.

28. "Do Benefits and Costs Matter in Environmental Regulation? An Analysis of EPA Decisions Under Superfund" (with Shreekant Gupta and George L. Van Houtven), in R. Revesz and R. Stewart (eds.) **Reauthorizing Superfund: Theoretical and Empirical Issues**. Baltimore: Johns Hopkins University Press for Resources for the Future, 1995.
29. "Discussion: Valuing Food Safety: Which Approaches to Use?" in Julie Caswell (ed.) **Valuing Food Safety and Nutrition**. Boulder, CO: Westview Press, 1995.
30. "What is the Value of Reduced Morbidity in Taiwan?" (with A. Alberini, Tsu-Tan Fu, A. Krupnick, Jin-Tan Liu, Daigee Shaw and Winston Harrington) in R. Mendelsohn and D. Shaw (eds.) **The Economics of Pollution Control in the Asian Pacific**. London: Edward Elgar Publishers, 1996.
31. "Comment on "Estimating the Demand for Public Goods: The Collective Choice and Contingent Valuation Approaches," in D. Bjornstad and J. Kahn (eds.) **Using Contingent Valuation to Measure Non-Market Values**. London: Edward Elgar Publishers, 1996.
32. "Benefit-Cost Analysis in Environmental Health and Safety Regulation: A Statement of Principles." (with K.J. Arrow, G.C. Eads, R.W. Hahn, L.B. Lave, R.G. Noll, P.R. Portney, M. Russell, R. Schmalensee, V.K. Smith and R. N. Stavins) AEI Press, 1996.
33. "Is There A Role for Benefit-Cost Analysis in Environmental, Health and Safety Regulation?" (with K.J. Arrow, G.C. Eads, R.W. Hahn, L.B. Lave, R.G. Noll, P.R. Portney, M. Russell, R. Schmalensee, V.K. Smith and R. N. Stavins), **Science** 272 (1996), 221-222.
34. "When is a Life Too Costly to Save? The Evidence from U.S. Environmental Regulations" (with George L. Van Houtven), **Journal of Environmental Economics and Management** 30 (1996), 348-68.
35. "Paying for Permanence: An Economic Analysis of EPA's Cleanup Decisions at Superfund Sites," (with Shreekant Gupta and George Van Houtven), **The RAND Journal of Economics** 27 (1996), 563-82.
36. "The Health Benefits of Air Pollution Control in Delhi" (with Nathalie Simon, Anna Alberini, Seema Arora and P.K. Sharma), **American Journal of Agricultural Economics** 79 (1997), 1625-1629.
37. "Valuing Health Effects of Air Pollution in Developing Countries: The Case of Taiwan,:" (with Anna Alberini, Tsu-Tan Fu, Alan Krupnick, Jin-Tan Liu, Daigee Shaw and Winston Harrington), **Journal of Environmental Economics and Management** 34 (1997), 107-126.
38. "Contingent Valuation," (with Anna Alberini) in **The New Palgrave Dictionary of Economics and the Law**, Peter Newman (ed.). London: Macmillan, 1998.
39. "Roads, Population Pressures and Deforestation in Thailand, 1976-1989," (with C. Griffiths and M. Mani), **Land Economics**, 75 (1999), 58-73.

40. "Environmental Federalism: Welfare Losses from Uniform National Drinking Water Standards," (with Terry M. Dinan and Paul R. Portney), in **Environmental and Public Economics: Essays in Honor of Wallace E. Oates**, Arvind Panagariya, Paul Portney, and Robert M. Schwab eds., Cheltenham, UK: Edward Elgar Publishing Company, 1999.
41. "The Implications of Hyperbolic Discounting for Project Evaluation," (with David Laibson) in **Discounting Intergenerational Equity**. Paul R. Portney and John Weyant (eds.) Washington, DC: Resources for the Future, 1999.
42. "Has Economic Research Answered the Needs of Environmental Policy?" **Journal of Environmental Economics and Management**, 39 (2000), 328-350.
43. "Public Choices Between Life-Saving Programs: The Tradeoff Between Qualitative Factors and Lives Saved"(with Uma Subramanian), **Journal of Risk and Uncertainty**, 21(1):117-149, July 2000.
44. "Sulfur Dioxide Control by Electric Utilities: What Are the Gains from Trade?" (with Curtis Carlson, Dallas Burtraw, and Karen Palmer), **Journal of Political Economy**, 108 (2000), 1292-1317.
45. "Predicting the Location of Deforestation in North Thailand: The Role of Roads and Protected Areas," (with Jyotsna Puri and Charles Griffiths), **Land Economics**, 77(2):172-186, May 2001.
46. "Age, Health, and the Willingness to Pay for Mortality Risk Reductions: A Contingent Valuation Survey of Ontario Residents," (with Alan Krupnick, Anna Alberini, Nathalie Simon, Bernie O'Brien, Ron Goeree and Martin Heintzleman), **Journal of Risk and Uncertainty**, 24(2):161-186, March 2002.
47. **Estimating the Public Health Benefits of Air Pollution Regulations** (co-author), National Research Council, 2002.
48. "The Demand for a Malaria Vaccine: Evidence from Ethiopia," (with Mitiku Haile, Julian Lampietti, Christine Poulos and Dale Whittington), **Journal of Development Economics**, 75(1):303-318, October 2004.
49. "Does the Value of a Statistical Life Vary with Age and Health Status? Evidence from the U.S. and Canada," (with Alan Krupnick, Anna Alberini and Nathalie Simon), **Journal of Environmental Economics and Management**, 48(1): 769-792, July 2004.
50. "Better Evaluation of Life-Saving Environmental Regulations," in **New Approaches on Energy and the Environment: Policy Advice for the President**. Richard D. Morgenstern and Paul R. Portney (eds.) Washington, DC: Resources for the Future, 2004.
51. "Traffic Fatalities and Economic Growth," (with Elizabeth Kopits), **Accident Analysis and Prevention**, 37(1):169-178, January 2005.

52. “The Impact of Urban Spatial Structure on Travel Demand in the United States,” (with Antonio Bento, Ahmed Mobarak and Katja Vinha), **The Review of Economics and Statistics**, 87(3): 466-478, August 2005.
53. **Environmental Health and Traditional Fuel use in Guatemala** (with K. Ahmed, Y. Awe, D. Barnes and M. Kojima). Washington, DC: World Bank, 2005.
54. “The Demand for Insecticide-Treated Mosquito Nets” (with C. Poulos, J. Lampietti, D. Whittington and M. Haile) in the **Handbook of Contingent Valuation**, J. Kahn and A. Alberini (eds.), pp. 324-339. Edward Elgar, 2006.
55. “Willingness to Pay for Mortality Risk Reductions: Does Latency Matter?” (with Anna Alberini, Alan Krupnick and Nathalie Simon), **Journal of Risk and Uncertainty**, 32(3): 231-245, May 2006.
56. **Valuing Health for Regulatory Cost-Effectiveness Analysis** (Co-author), National Academies Press, 2006.
57. “The Value of Mortality Risk Reductions in Delhi, India,” (with Soma Bhattacharya and Anna Alberini), **Journal of Risk and Uncertainty**, 34(1): 21-47, February 2007.
58. “The Impact of Policies to Control Motor Vehicle Emissions in Mumbai, India,” (with Akie Takeuchi and Antonio Bento), **Journal of Regional Science**, 47(1): 27-46, February 2007.
59. “Why Have Traffic Fatalities Declined in Industrialized Countries? Implications for Pedestrians and Vehicle Occupants,” (with Elizabeth Kopits), **Journal of Transport Economics and Policy**, 42(1):129-154, January 2008.
60. “The Welfare Effects of Slum Improvement Programs: The Case of Mumbai” (with Akie Takeuchi and Antonio Bento), **Journal of Urban Economics**, 64(1), 65-84, July 2008.
61. “Global Environmental Sustainability—Protecting the Commons,” Chapter 7 of the **Global Monitoring Report 2008**, Washington, DC: World Bank, April 2008.
62. “A Cross-Country Comparison of Decentralization and Environmental Protection: Commentary” in **Fiscal Decentralization and Land Policies**, G. Ingram and Y. Hong (eds.). Cambridge, MA: Lincoln Institute of Land Development (2008).
63. “What Are the Health Effects of Air Pollution in China? in *Is Economic Growth Sustainable?*, G.M. Heal (ed). London:Palgrave-Macmillan, 2010.
64. **Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use.** (co-author and Vice-Chair of Committee). National Research Council, 2010.
65. **Climate Change Assessments: Review of the Processes and Procedures of the Inter-Governmental Panel on Climate Change.** Inter-Academy Council. Amsterdam. 2010.

66. "The Political Economy of Health Services Provision in Brazil," (with Ahmed Mobarak and Andrew Sunil Rajkumar), **Economic Development and Cultural Change**, 59(4), 723-751, July 2011.
67. "Valuing Mortality Risks Reductions: Progress and Challenges," (with James K. Hammitt and Lisa A. Robinson), **Annual Review of Resource Economics**, vol. 3, 313-336, 2011.
68. "The Cost of Fuel Economy in the Indian Passenger Vehicle Market," (with Randy Chugh and Urvashi Narain), **Energy Policy**, 39(11), 7174-7183, November 2011.
69. "Public Transport Subsidies and Affordability in Mumbai, India," (with Soma Bhattacharya), **Urban Studies Research**, vol. 2012, November 2012.
70. **Effects of US Tax Policy on Greenhouse Gas Emissions.** (co-author). National Research Council, 2013.
71. "Determining Benefits and Costs For Future Generations," (with Kenneth J. Arrow, Christian Gollier, Ben Groom, Geoffrey M. Heal, Richard G. Newell, William D. Nordhaus, Robert S. Pindyck, William A. Pizer, Paul R. Portney, Thomas Sterner, Richard S. J. Tol, and Martin L. Weitzman), **Science**, vol 341(6144), 349-350, July 2013.
72. "Why Are Power Plants in India Less Efficient than Power Plants in the United States?" (with Hei Sing (Ron) Chan and Kabir Malik), **American Economic Review Papers and Proceedings**, 104(5), 586-90, May 2014.
73. "How Effective are U.S. Renewable Energy Subsidies in Cutting Greenhouse Gases?" (with Brian C. Murray, Francisco de la Chesnaye, and John M. Reilly), **American Economic Review Papers and Proceedings**, 104(5), 569-74, May 2014.
74. "Declining Discount Rates," (with Mark C. Freeman, Ben Groom, and William A. Pizer), **American Economic Review Papers and Proceedings**, 104(5), 538-43, May 2014.
75. "Getting Cars Off the Road: The Cost-Effectiveness of an Episodic Pollution Control Program," (with Yi Jiang, Anna Alberini and Patrick Baur), **Environmental and Resource Economics**, vol. 57, 117-143, May 2014.
76. "Should Governments Use a Declining Discount Rate in Project Analysis?" (with K.J. Arrow, C. Gollier, B. Groom, G.M. Heal, R.G. Newell, W.D. Nordhaus, R.S. Pindyck, W.A. Pizer, P.R. Portney, T. Sterner, R.S.J. Tol, and M.L. Weitzman. **Review of Environmental Economics and Policy**, 8(2), 145-163, July 2014.
77. "How Should Benefits and Costs Be Discounted in an Inter-generational Context?" Ch. 5 in *Sustainable Consumption: Multi-Dimensional Perspectives in Honour of Sir Partha Dasgupta*, Dale Southeron and Alistair Ulph (eds.), Oxford University Press, 2014.
78. "Using and Improving the Social Cost of Carbon," (with William Pizer, Matthew Adler, Joseph Aldy, David Anthoff, Kenneth Gillingham, Michael Greenstone, Brian Murray, Richard Newell, Richard Richels, Arden Rowell, Stephanie Waldhoff, and Jonathan Wiener), **Science**, 346 (6213), 1181-1182, December 2014.

79. Health Benefits of Air Pollution Abatement Policy: Role of the Shape of the Concentration-Response Function,” (with Arden Pope, Jay Coggins, & Aaron Cohen,), **Journal of the Air & Waste Management Association**, 65(5), 2015.
80. “The Impact of Electricity Sector Restructuring on Coal-Fired Power Plants in India,” (with Kabir Malik, Alex Limonov and Anoop Singh), **The Energy Journal**, 36 (4), 287-312, 2015.
81. *Assessment of Approaches to Updating the Social Cost of Carbon: Phase I Report on a Near-Term Update*, (co-Chair). National Research Council, January 2016.
82. *Valuing Climate Damages: Updating Estimation of of the Social Cost of Carbon Dioxide*, (co-Chair). National Research Council, January 2017.
83. “Looking Backward to Move Regulation Forward,” (with Arthur Fraas and Richard Morgenstern), **Science**, 355 (6332), 1375-1376, March 2017.
84. “Costs and Benefits of Installing Flue-Gas Desulfurization Units at Coal-Fired Power Plants in India,” (with Sarath Guttikunda, Puja Jawahar, Kabir Malik, and Ian Partridge), Chapter 13 in **Disease Control Priorities**, Third Edition: Volume 7, Injury Prevention and Environmental Health, 2017.
85. “The Welfare Effects of Fuel Conservation Policies in a Dual-Fuel Car Market: Evidence from India,” (with Randy Chugh), **Journal of Environmental Economics and Management**, 86, 244-261, November 2017.
86. “Household Location Decisions and the Value of Climate Amenities,” (with Paramita Sinha and Martha L. Caulkins. **Journal of Environmental Economics and Management**, Forthcoming.
87. *The Lancet Commission on Pollution and Health* (co-author), **The Lancet**, 2017.
88. “The Impact of Trading on the Costs and Benefits of the Acid Rain Program.” (with H. Ron Chan, B. Andrew Chupp, and Nicholas Z. Muller), **Journal of Environmental Economics and Management**, 88, 180-209, March 2018.
89. “Facilitating Retrospective Analysis of Environmental Regulations.” (with Richard Morgenstern and Nicholas Rivers). **Review of Environmental Economics and Policy**. June 2018.
90. “Pollution and Global Health – An Agenda for Prevention.” (with Philip J. Landrigan, Richard Fuller, Howard Hu, Jack Caravanos, David Hanrahan, Karti Sandilya, Thomas Chiles, Pushpam Kumar, and William A. Suk) **Environmental Health Perspectives**. Forthcoming.

WORKING PAPERS

1. “Improving Air Quality in Metropolitan Mexico City: An Economic Valuation,” (with co-authors), Policy Research Working Paper 2785, February 2002.
2. “Public Transport Subsidies and Affordability in Mumbai, India,” (with Soma Bhattacharya), Policy Research Working Paper 4395, November 2007.
3. “Valuing Mortality and Morbidity in the Context of Disaster Risks,” (with Sebnem Sahin), Policy Research Working Paper 4832, February 2009.
4. “Getting Cars Off the Road: The Cost-Effectiveness of an Episodic Pollution Control Program,” (with Anna Alberini, Yi Jiang and Patrick Baur), Resources for the Future Discussion Paper DP10-25, April 2010. (also NBER Working Paper 15904, April 2010).
5. “Options for Energy Efficiency in India and Barriers to Their Adoption: A Scoping Study,” (with Soma Bhattacharya), Resources for the Future Discussion Paper DP10-20, April 2010.
6. “Valuing Mortality Risk Reductions: Progress and Challenges,” (with James K. Hammitt and Lisa A. Robinson), Resources for the Future Discussion Paper DP11-10, March 2011. (also NBER Working Paper 16971, April 2011).
7. “The Cost of Fuel Economy in the Indian Passenger Vehicle Market,” (with Randy Chugh and Urvashi Narain), Resources for the Future Discussion Paper, March 2011. (also NBER Working Paper 16987, April 2011).
8. “Policy Response to Pandemic Influenza: The Value of Collective Action,” (with Georgiy Bobashev, Joshua M. Epstein, D. Michael Goedecke, Stephen Hutton, and Mead Over), NBER Working Paper 17195, July 2011.
9. “Estimating the Impact of Restructuring on Electricity Generation Efficiency: The Case of the Indian Thermal Power Sector,” (with Alexander Limonov, Kabir Malik, and Anoop Singh), NBER Working Paper 17383, September 2011.
10. “The Benefits of Achieving the Chesapeake Bay TMDLs” (with William Isaac), Resources for the Future Discussion Paper DP11-31, September 2011.
11. “The Health Effects of Coal Electricity Generation in India,” (with Shama Gamkhar, Kabir Malik, Alex Limonov, and Ian Partridge), Resources for the Future Discussion Paper DP12-25, June 2012.
12. “How Should Benefits and Costs Be Discounted in an Intergenerational Context?” Resources for the Future Discussion Paper DP12-42, October 2012.
13. “How Should Benefits and Costs Be Discounted in an Intergenerational Context? The Views of an Expert Panel,” (with Kenneth J. Arrow, Christian Gollier, Ben Groom, Geoffrey M. Heal, Richard G. Newell, William D. Nordhaus, Robert S. Pindyck, William A. Pizer, Paul R. Portney, Thomas Sterner, Richard S. J. Tol, and Martin L. Weitzman), Resources for the Future Discussion Paper, DP12-53, December 2012.

14. "The Value of Climate Amenities: Evidence from US Migration Decisions," (with Paramita Sinha), Resources for the Future Discussion Paper, DP13-01, January 2013, and NBER Working Paper 18756, January 2013.
15. "How Should the World Bank Estimate Air Pollution Damages?" (with Shefali Khanna), Resources for the Future Discussion Paper, DP14-30, September 2014.
16. "The Welfare Effects of Fuel Conservation Policies in a Dual-Fuel Car Market: Evidence from India." (with Randy Chugh), Resources for the Future Discussion Paper, DP14-33, September 2014, and NBER Working Paper 20460, September 2014
17. "The Net Benefits of the Acid Rain Program: What Can We Learn from the Grand Policy Experiment?" (with H. Ron Chan, B. Andrew Chupp, and Nicholas Z. Muller), Resources for the Future Discussion Paper, DP15-25, June 2015, and NBER Working Paper 21383, July 2015. Revised as "The Impact of Trading on the Costs and Benefits of the Acid Rain Program," DP15-25 REV, April 2017.
19. "Preferences for Equality in Environmental Outcomes," (with Alan J. Krupnick and William Raich), Resources for the Future Discussion Paper DP16-36, September 2016.
20. "Household Location Decisions and the Value of Climate Amenities," (with Paramita Sinha and Martha L. Caulkins), NBER Working Paper 21826, December 2016, and Resources for the Future Discussion Paper DP16-02, January 2017.

HONORS AND AWARDS

Distinguished University Professor, University of Maryland, College Park, 2011.

Member, National Academy of Sciences, 2008.

Fellow, Association of Environmental and Resource Economists, 2006.

OTHER PROFESSIONAL ACTIVITIES

Member, Steering Committee, Environmental Health Matters Initiative, National Academy of Sciences, 2018-

Member, Pure Earth Leadership Council, 2017-

Member, Scientific Committee, Chaire Economie du Climat, 2016-

Co-Chair, NAS-NRC Committee on Assessing Approaches to Estimates of the Social Cost of Carbon, 2015-2017.

Member, American Economic Association Committee on Government Relations, 2014-2015.

Member, Board of the Division of Earth and Life Sciences, National Academy of Sciences, 2013-2016.

Member, Finance Committee, National Academy of Sciences, 2013-2018

Vice-Chair, NAS-NRC Committee on the Health, Environmental, and Other External Costs and Benefits of Energy Production and Consumption, 2008-2009.

Chair, Environmental Economics Advisory Committee, USEPA Science Advisory Board, 2002-2006; Member, 1997-2000, 2006-2006

Chair, Arsenic Rule Benefits Review Panel, USEPA Science Advisory Board, 2001.

Chair, Advisory Council on Clean Air Compliance Analysis, USEPA Science Advisory Board, 1997-2000; Member, 1994-2002.

Member, Committee on the Status of Women in the Economics Profession (CSWEP), 1995-97

President, Association of Environmental and Resource Economists, 1995-96

Treasurer, Association of Environmental and Resource Economists, 1989-93

Associate Editor, **Journal of Environmental Economics and Management**, 1991
Journal of Economic Perspectives, 1999-2001, 2002-2004
Resource and Energy Economics, 1998-2002
Journal of the Association of Environmental and Resource Economists, 2014-2016

Editorial Board, **Journal of Environmental Economics and Management**, 1989-1990, 1993-95
Environment and Development Economics, 2001-2007
World Bank Economic Review, 2006-2008, 2012-2016
World Bank Research Observer, 2007-2008
Review of Environmental Economics and Policy, 2006-2011, 2017-
Annual Review of Resource Economics, 2007-2011
Journal of Benefit-Cost Analysis, 2009-

Member, Advisory Board:

Center for Risk Analysis, Harvard University, 1998-2001
Donald Bren School of the Environment, UC Santa Barbara, 1998-2003
AEI-Brookings Center on Regulation, 1998-2008
Resources for the Future, 2003-2008
Harvard Environmental Economics Program, 2008-
Center for Disease Dynamics, Economics & Policy, 2011-2017
Environmental Defense Fund, Economics Advisory Committee, 2014-