

CURRICULUM VITAE

March 2005

VIRGINIA D. MCCONNELL

Education

Ph.D. in Economics 1978 University of Maryland
B.A. in Economics 1969 Smith College

Experience:

1982 - present Professor, Department of Economics, University of Maryland Baltimore County
1995- present Senior Fellow, Resources for the Future, Washington, D.C.
1979 - 1982 Research Associate and Lecturer, Bureau of Business and Economic Research,
Department of Economics, University of Maryland.
1975 - 1979 Instructor, Assistant Professor, Department of Economics, University of Rhode
Island.

Fellowship

Gilbert White Research Fellowship, Resources for the Future, 1991-92.

Publications

Journal Articles:

Harrington, Winston and Virginia McConnell. 2003. Options for a Lighter Tread: Policy and Technology Options for Motor Vehicles. *Environment*. 45 (9), November: 21-38.

Boyd, James, Dallas Burtraw, Alan Krupnick, Virginia McConnell, Richard G. Newell, Karen Palmer, James Sanchirico, and Margaret Walls. 2003. Trading Cases: Is trading credits in created markets a better way to reduce pollution and protect natural and protect natural resources? *Environmental Science and Technology* vol. 37 (11) June:217-223.

Ando, Amy, Virginia McConnell and Winston Harrington. 2000. "Costs, Emission Reductions and Vehicle Repair: Evidence from Arizona," *Journal of Air and Waste Management* 50 April: 509-521.

Harrington, Winston, Virginia McConnell, and Amy Ando. 2000. "Are Vehicle Emission Inspection Programs Living Up to Expectations?" *Transportation Research Part D* 5.

- Amy Ando, Winston Harrington and Virginia McConnell, "Estimating Full IM240 Emissions from Partial Test Results: Evidence from Arizona," *Journal of the Air and Waste Management Association*, v 49, 1999 (1153-1167).
- Anna Alberini, Winston Harrington and Virginia McConnell, "Estimating an Emissions Supply Function from Accelerated Vehicle Retirement Programs," *Review of Economics and Statistics*, v. 78 No.2, 1996 (251-265).
- Anna Alberini, Winston Harrington, and Virginia McConnell, "Determinants of Participation in Accelerated Vehicle Retirement Programs," *The Rand Journal of Economics*, Vol. 26, No. 1, Spring 1995.
- Winston Harrington, Margaret Walls and Virginia D. McConnell, "Shifting Gears: New Directions for Cars and Clean Air," *Energia*, v.16 No.4, 1995.
- Winston Harrington, Margaret Walls and Virginia D. McConnell, "Driving Our Way to Cleaner Air," *Issues in Science and Technology*, Winter 1994/1995.
- Winston Harrington and Virginia McConnell, "Modeling In-Use Vehicle Emissions and the Effects of Inspection and Maintenance Programs," *Journal of Air and Waste Management Association*, Vol. 44, No.6, June 1994 (794-799).
- Gregory E. Schwarz and Virginia D. McConnell, "Local Choice and Wastewater Treatment Plant Performance," *Water Resources Research*., Vol. 29, No. 6, June 1993, (1589-1600).
- Virginia McConnell and Gregory Schwarz, "The Supply and Demand for Pollution Control: Evidence from Wastewater Treatment," *Journal of Environmental Economics and Management*, Vol. 23, June 1992 (54-77).
- Virginia McConnell and Robert Schwab, "The Impact of Environmental Regulations on Industry Location Decisions: The Motor Vehicle Industry," *Land Economics*, Vol. 66, No. 1, February 1990, (67-81).
- Anthony Barbera and Virginia McConnell, "The Impact of Environmental Regulations on Industry Productivity: Direct and Indirect Effects," *Journal of Environmental Economics and Management*, Vol. 18, January 1990 (50-65).
- Virginia D. McConnell, "Costs and Benefits of Vehicle Emission Inspection: A Case Study of the Maryland Region," *Journal of Environmental Management*, Vol. 30, Winter 1990 (1-15).
- Virginia D. McConnell, John H. Cumberland and Patrice Gordon, "Regional Marginal Costs and Economies of Scale in Municipal Waste Treatment: An Application to the Chesapeake Bay," *Growth and Change*, Vol. 19, No. 4, Fall 1988 (1-13).
- Curtis C. Harris and Virginia D. McConnell, "Surpluses in Equilibrium Land Markets", *Journal of The American Real Estate & Urban Economics Association*, Vol. 15, No.4, Winter 1987 (359-373).

- Anthony J. Barbera and Virginia D. McConnell, "Effects of Pollution Control on Industry Productivity," *Journal of Industrial Economics*, Vol. 35, No. 2, January 1987, (161-172).
- Virginia D. McConnell, John H. Cumberland and Patrice Gordon, "Forecasting Municipal Waste Treatment Effluent and Costs: An Application of the Chesapeake Bay," *Review of Regional Studies*, no. 2, Spring 1986 (11-22).
- "Automobile Use and Locational Interdependencies", *Journal of Regional Science*, Vol.26, No.3, 1986 (475-498).
- Curtis C. Harris, Jr., John H. Cumberland and Virginia D. McConnell, "A Model for Forecasting the Economic and Environmental Impact of Energy Policy," *Energy Economics*, July 1984, (167-176).
- Virginia D. McConnell and Mahlon Straszheim, "Auto Pollution and Congestion in an Urban Model: An Analysis of Alternative Strategies", *Journal of Urban Economics*, Volume 11, January 1982, (11-31).
- "Estimating Net Benefits of Recreation Under Conditions of Excess Demand," *Journal of Environmental Economics and Management*, Vol. 2, March 1976, with Kenneth E. McConnell, (224-230).

Papers under Review at Journals:

- Virginia McConnell, Margaret Walls, and Elizabeth Kopits, *Density, TDRs, and the Demand for Development*, under review at the *Journal of Urban Economics*.
- Virginia McConnell, Elizabeth Kopits and Margaret Walls, "How Well Can Markets for Development Rights Work? Evaluating a Farmland Preservation Program" Under review, *Urban Studies*.
- Amy Ando, Winston Harrington and Virginia McConnell, "Incentive Policies and Household Polluters: The Case of Vehicle Inspection and Maintenance Programs," under revisions for the *Journal of Environmental Economics and Management*, August 2000.

Books and Book Chapters:

- Winston Harrington and Virginia McConnell, "Vehicles and the Environment", Chapter 5 of *The International Yearbook of Environmental and Resource Economics, 2003/2004: A Survey of Current Issues*, edited by Henk Folmer and Tom Tietenberg, Edward Elgar, 2003.
- Evaluating Vehicle Emissions Inspection and Maintenance Programs*, co-author as member of National Research Council, National Academy of Sciences, 2001.
- Winston Harrington and Virginia McConnell, "Coase and Car Repair: Who Should Be Responsible for Emissions Of Vehicles In Use?" in *Property Rights, Economics and the Environment*, edited by Michael D. Kaplowitz, JAI Press, Stamford, Connecticut, 2000.

Anna Alberini, David Edelstein and Virginia McConnell, "Will Speeding the Retirement of Old Cars Improve Air Quality?" Wallace E. Oates, editor, *The RFF Reader in Environmental and Resource Management*, Resources for the Future, Washington, D.C. 1999.

David Austin, Alan Krupnick, Virginia McConnell, "Trans-Boundary Airshed Management as an Approach to Trans-Boundary Water Cooperation: The Case of the Chesapeake Bay," Richard Just and Sinaia Netanyahu, eds. *Conflict and Cooperation on Trans-Boundary Water Resources*, (Kluwer Academic Publishers) 1998.

Winston Harrington, Virginia McConnell and Anna Alberini, "Economic Incentive Policies under Uncertainty: The Case of Vehicle Emission Fees," in Kenneth Small and Roberto Roson, eds. *Environment and Transport in Economic Modeling* (Kluwer Academic Publishing, Amsterdam) 1998.

Winston Harrington, Virginia McConnell and Margaret Walls, "Who's in the Driver's Seat? Mobile Source Policy in the Federal System," John Braden and Stef Proost, eds., *Climate Change, Transport and Environmental Policy: Empirical Applications in a Federal System*, (Edward Elgar Publishing: London). 1998.

Winston Harrington and Virginia D. McConnell, "Cost Effectiveness of Remote Sensing of Vehicle Emissions," in *Cost Effective Control of Urban Smog* (Federal Reserve Bank of Chicago: Chicago, Illinois), November 1993.

Other Publications:

Virginia McConnell and Margaret Walls. "The Value of Open Space: Evidence from Studies of Non-Market Benefits", Working paper, Lincoln Institute for Land Policy, <http://www.rff.org/rff/Documents/RFF-REPORT-Open%20Spaces.pdf> and RFF Report, January 2005.
<http://www.rff.org/rff/Documents/RFF-REPORT-Open%20Spaces.pdf>

Margaret Walls and Virginia McConnell. 2003. "Incentive Based Land Use Policies and Water Quality in the Chesapeake Bay," Issue Paper for National Oceanographic and Atmospheric Administration and RFF Discussion Paper, December.

Elizabeth Kopits, Virginia McConnell and Margaret Walls. 2003. "Using Markets to Preserve Farms and Open Space," *Resources*, Resources for the Future, Washington, D.C. June.

Review of the Colorado AIR program, with Alison Pollack of Environ Corporation, Tom Wenzel of Lawrence Berkeley Labs, and Joel Schwartz, of the Reason Foundation. May 2003.

Winston Harrington and Virginia McConnell, 2003. *Vehicles and the Environment*, Resources for the Future Report, Washington, D.C.

Winston Harrington, Virginia McConnell, and Matt Cannon, "A Behavioral Analysis of EPA's Mobile Emission Factor Model," U.S. Department of Transportation, Federal Highway Administration Report, June 1998.

Winston Harrington, Margaret Walls and Virginia D. McConnell, "Use Market Forces to Reduce Auto Pollution," *Chemtech*, Vol. 25, No. 5, May 1995.

Anna Alberini and Virginia D. McConnell, "Will Speeding the Retirement of Old Cars Improve Air Quality," *Resources*, No. 115 (Resources for the Future: Washington, D.C.), Spring 1994.

Winston Harrington and Virginia D. McConnell, "Vehicle Emissions Inspection and Maintenance: Where Do We Go From Here?" *Resources*, No. 110 (Resources for the Future: Washington, D.C.), Winter 1993.

Other Papers:

"Recommendations of the Innovative and Incentive Based Policies Workgroup," co-authored report as chair of the Innovative and Incentive-Based Policies Workgroup, Mobile Sources Technical Review Subcommittee. May 5, 1999.

Amy Ando, Winston Harrington, and Virginia McConnell Costs, "Emissions Reductions and Vehicle Repair: Evidence from Arizona," Resources for the Future Discussion Paper, 99-12, February 1999.

Alan Krupnick, Virginia McConnell, David Austin, Matt Cannon, Terrell Stoesell, and Brian Morton, "The Chesapeake Bay and the Control of NOx Emissions: A Policy Analysis, Resources for the Future Discussion Paper, 98-48, September 1998.

Amy Ando, Winston Harrington, and Virginia McConnell, "Estimating Full IM240 Emissions from Partial Test Results," Resources for the Future Discussion Paper 98-24, March 1998.

Anna Alberini, Winston Harrington, and Virginia McConnell, "Fleet Turnover and Old Car Scrap Policies," Resources for the Future Discussion Paper 98-23, March 1998.

Winston Harrington, Virginia McConnell, and Matt Cannon, "A Behavioral Analysis of EPA's Mobile Emission Factor Model," Resources for the Future Discussion Paper, 1998.

Anna Alberini, Winston Harrington, and Virginia D. McConnell, "Vehicle Emission Fees with a Refund," Resources for the Future Discussion Paper, April 1997.

Alan Krupnick, Virginia D. McConnell and Eduardo Uribe Botero, "Mobile Sources and Air Pollution Policy: International Experience and Recommendations for Bogota, Colombia," September 1996.

Virginia D. McConnell, Margaret Walls and Winston Harrington, "Evaluation of the Costs and Emissions Reductions from Compliance with Mobile Source Emission Control Requirements: Retrospective Analysis," Resources for the Future Working Paper (95-36) (Washington, D.C.) August 1995.

Anna Alberini, David Edelstein, Winston Harrington and Virginia McConnell, "Analysis of Emission Reductions and Costs of the Delaware Vehicle Retirement Program," report for the President's Commission on Environmental Quality, Resources for the Future Discussion Paper 94-27, May 1994.

Winston Harrington and Virginia McConnell, "Remote Sensing of Motor Vehicle Emissions: Can It Replace I&M Programs," Resources for the Future Discussion Paper QE 93-03, January 1993.

Virginia McConnell and Winston Harrington, "Cost-Effectiveness of Enhanced Motor Vehicle Inspection and Maintenance Programs," Resources for the Future discussion paper, QE92-18-REV, 1992.

John H. Cumberland and Virginia McConnell, "The Economic Value of the Chesapeake Bay," Paper prepared for the Environmental Matters Committee of the House of Delegates of the Maryland General Assembly Workshop on Chesapeake Bay Management, June 1983.

Curtis C. Harris, Jr., Virginia D. McConnell and John H. Cumberland, "The Multiregional, Multi-Industry Environmental Model: An Overview," Working Paper, University of Maryland, November 1982.

Virginia D. McConnell and Arthur Mead, "The Role of Financial Incentive Programs on Economic Development in Rhode Island," prepared for the Rhode Island Governor's Conference on Urban Development, 1979.

Editorials

"The Wrong Way to Test Your Tailpipe," Winston Harrington and Virginia McConnell, *The Washington Post*, editorial page, March 31, 1995.

Professional Activities

Papers Presented at Conferences

"Zoning, TDRs, and the Density of Development," presented at the American Economic Association Meetings, Philadelphia, PA. January 2005.

"How Well Can Markets for Development Rights Work? Evaluating a Farmland Preservation Program" presented at the APPAM meetings, Washington, D.C. November, 2003.

"Markets for Land Development Rights," American Economics Association Meetings, Washington, D.C., January 2003.

"The Chesapeake Bay and the Control of NO_x Emissions: A Policy Analysis," Southern Economics Association, New Orleans, Louisiana, November 1999.

"I/M Performance: Predictions and Evidence," Clean Air Conference, Breckenridge, Colorado, September, 1998.

"The Economics of Vehicle Emissions Repair," Meetings of the European Environmental and Resource Economics Association, Venice, Italy, June 1998.

"The Role of Economic Incentives in Mobile Source Policies," NAMVECC Conference, Los Angeles, California, March 1998.

"Allocating Joint Costs and Ancillary Benefits of NO_x Control: An Application to the Chesapeake Bay," by David Austin, Alan Krupnick, and Virginia McConnell, presented at the International Water and Resource Economics Consortium Conference, Conflict and Cooperation on Trans-boundary Water Resources, Annapolis, Maryland, April 1997.

"Mobile Sources and Air Pollution Policy: International Experience and Recommendations for Bogota, Colombia," by Alan Krupnick, Virginia D. McConnell, and Eduardo Uribe Botero, for the Conference on Environmental Economic Policies in the U.S. and Colombia. Bogota, Colombia, September 1996.

"Economic Incentive Policies under Uncertainty: The Case of Vehicle Emission Fees," by Winston Harrington, Virginia McConnell and Anna Alberini, presented at the Meetings of the European Association of Environmental and Resource Economics, Lisbon, Portugal, June 1996.

"Fleet Turnover and Old Car Scrap Policies," by Anna Alberini, Winston Harrington and Virginia D. McConnell, presented at the American Economic Association Meetings, San Francisco, California, January 1996.

"Economic Incentive Policies and Uncertainty in Policies to Reduce Vehicle Emissions," by Winston Harrington, Virginia McConnell and Anna Alberini, Southern Economic Association Meeting, New Orleans, November, 1995.

"Who's in the Driver's Seat? Mobile Source Policy in the Federal System," invited paper, Symposium on Economic Aspects of Environmental Policy Making in a Federal System, Leuven, Belgium, June 1995.

"The Economics of Remote Sensing of Motor Vehicle Emissions," presented at the Meetings of the European Association of Resource and Environmental Economists, Fountainbleue, France, July 1993.

"The Cost Effectiveness of Remote Sensing of Motor Vehicle Emissions," (with Winston Harrington) presented at *the Conference on Urban Smog*, Federal Reserve Bank of Chicago, June 1993.

"Remote Sensing of Motor Vehicle Emissions: Can It Replace I&M Programs?," American Economic Association Meetings, Anaheim, California, January 1993.

"Cost-Effectiveness of Enhanced I&M Under the Clean Air Act of 1990," Seminar at Resources for the Future, February 1992.

"The Supply and Demand for Pollution Control: Evidence From Wastewater Treatment," American Economics Association Meetings, Washington, D.C. December 1990.

"Do Environmental Regulations Affect Industry Location Decisions?" Western Regional Science Association, Molokai, Hawaii, 1990.

"The Impact of Environmental Regulation on Industry Location Decisions: The Motor Vehicle Industry," Western Economic Association Meetings, Los Angeles, California, July 1988.

"Regional Differences in Manufacturing Productivity Growth and Input Substitution," Regional Science Association Meetings, Baltimore, Maryland, November 1987.

Session Chair

Chair of session for the European Association of Environmental and Resource Economics (EAERE), Rethymnon, Crete, Greece, July 2000.

Chair of session, and speaker, Clean Air Conference, Aspen, Colorado, September 1999.

Chair for: "Economic Incentive Policies for Natural Resources," Association of Environmental and Resource Economists, at the American Economic Association Meetings, Boston, Massachusetts, January 1994.

Chair for: "Externalities and the Automobile," Association of Environmental and Resource Economists, at the American Economic Association Meetings, San Francisco, California, January 1996.

Presentations and Other Professional Activities

Seminar speaker, "Zoning, TDRs and the Density of Development," given at the Center for Urban Environmental Research and Education, UMBC, Baltimore Maryland, February 11, 2005.

Presented paper on analysis of Calvert County TDR program to experts from around the State of Maryland about the use and design of TDR programs. June 26, 2003 at Maryland Department of Natural Resources.

Seminar presentation "Is there a Role for TDRs in Land Use Preservation?" Resources for the Future, seminar series, May 7, 2003.

One of three speakers from different disciplines for Mosaic Panel, University-wide forum on Air Pollution in the Baltimore Region, UMBC April 2003.

Presentation of the Recommendations of the Workgroup on Innovative and Incentive Policies to the Clean Air Advisory Committee, Mobile Sources Technical Advisory Subcommittee of USEPA, Washington, D.C. January 2001.

Discussant, Meetings of the American Economic Association, Session title “Responses of Firm and Agencies to Environmental Regulation,” New Orleans, January 2001.

Presentation to the Meeting of the National Academy of Sciences, NAS, Research on Vehicle Emissions: Costs and Effectiveness of I/M Programs,” Washington, D.C., fall 2000.

Testimony before the Environmental Matters Committee of the Maryland House of Delegates, "The Role of Vehicle Emission Inspection and Maintenance in Maryland Under the Clean Air Act," July 11, 1995.

“Shifting Gears: New Directions for Cars and Clean Air,” meeting of urban transportation policy makers and academics, Atlanta, Georgia, October 1994.

Moderator for Focus Groups, on "Public Perception and Acceptance of Emission Fees in Southern California," Los Angeles, October 1994.

Testimony before the Environmental Matters Committee of the Maryland House of Delegates, "Economic Issues in Recycling Solid Waste," September 1991.

Referee/Reviewer for:

Referee for Journals: *Environmental Science and Technology, Journal of the Air & Waste Management Association, Journal of Policy Analysis and Management, Journal of Environmental Economics and Management, Review of Regional Studies, Land Economics, Marine Resource Economics, Water Resources Research, International Economic Review*

Review Panel, University of California Santa Barbara, project title: “The Petroleum Extraction Industry in Ventura, Santa Barbara, and San Luis Obispo Counties California: Economic, Fiscal, Institutional, Social and Historic Considerations 1997-98.

Editorial Board , *Journal of Environmental Economics and Management*, 1996,97.

Project Reviewer for National Science Foundation, Sea Grant.

Public Service:

National Academy of Sciences, Board on Environmental Studies and Toxicology, Commission on Life Sciences, Committee to Review State Practices for Setting Environmental Standards. 2004 - 2005.

Member of the EPA Science Advisory Board, Advisory Council on Clean Air Compliance Analysis. 2003 – 2004. The Council will review EPA’s “Benefits and Costs of the Clean Air Act 1990-2020: Revised Analytical Plan for EPA’s Second Prospective Analysis,” and “Estimating the Public Health Benefits of Proposed Air Pollution Regulations.”

Member of the Adhoc Air Workgroup to Examine Voluntary Controls to Limit Ozone in the Maryland Region, Spring 2003.

National Academy of Sciences, Board on Environmental Studies and Toxicology, Commission on Life Sciences, Committee to Review the Effectiveness of Vehicle Emission Inspection and Maintenance Programs, 2000-2001. Evaluating Vehicle Emission Inspection and Maintenance Programs.

Clean Air Advisory Committee, Mobile Sources Technical Advisory Subcommittee, U.S. Environmental Protection Agency, 1994-2002. Co-Chair of Mobile Source Innovative and Incentive Policies Workgroup, 1997-1999. Member of the Non-Road Diesel Vehicle Workgroup, Clean Air Advisory Committee, Mobile Sources Technical Advisory Subcommittee, USEPA, 2001.

Air Quality Subcommittee, Scientific and Technical Advisory Committee on the Chesapeake Bay, U.S. Environmental Protection Agency, Chesapeake Bay Program, 1993-2002.

Association of Environmental and Resource Economics, Contributed Papers Selection Committee for Annual Meetings, 1993-1995.