

January 2012

Gilbert E. Metcalf

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EDUCATION

- Ph.D. Harvard University, Economics. June 1988.
- M.S. University of Massachusetts, Amherst, Agricultural and Resource Economics, May 1984.
- B.A. Amherst College, Mathematics, June 1976.

CURRENT POSITION

Deputy Assistant Secretary for Environment and Energy, U.S. Department of the Treasury, 2011 – present.

Professor of Economics, Tufts University, 1999 - present (Associate Professor, 1997 - 1999; Assistant Professor, 1994 - 1997) *currently on leave*.

RESEARCH AREAS

Energy Economics, Environmental Tax Policy, Taxation, Applied Microeconomics

OTHER POSITIONS

Editorial Board, *Berkeley Electronic Journals in Economic Analysis and Policy*, June 2001 - present.

Research Associate, National Bureau of Economic Research, 1997 - present (Faculty Research Fellow from 1989-1997).

Lead Author, IPCC Fifth Assessment Report, June 2010 – March 2011 (resigned due to conflict with government service).

Vice President for Academic Affairs, United States Association for Energy Economics (USAEE) and Member of Organizing Committee for 2011 North American USAEE Conference, 2011.

Member, Advisory Board for SECURE Project (Security of Energy Considering its Uncertainty, Risks and Economic Implications) funded by the European Commission, 2009 – 2010.

Associate Editor, *Journal of Economic Perspectives*, 2008 – 2010.

Board of Editors, *American Economic Review*, 2000 – 2006.

Member, U.S. EPA Peer Review Team of Computable General Equilibrium Models for Climate Policy, October 2009 – March 2010.

Member, National Research Council Committee on Health, Environmental, and Other External Costs and Benefits of Energy Production and Consumption, August 2008 – October 2009.

Member, Advisory Council to the Dean of the College of Natural Resources and the Environment, University of Massachusetts, Amherst, 2004 – 2006.

Scholar in Residence, Tufts European Center at Talloires, France, May – June 2010.

Visiting Professor, MIT Department of Economics, Spring 2010, Spring 2011.

Visiting Scholar, MIT Joint Program on the Science and Policy of Global Change, 2000-2001; Spring 2006.

Visiting Assistant Professor of Public Policy, John F. Kennedy School of Government, Harvard University, Spring 1995 - Spring 1996.

Assistant Professor of Economics, Princeton University, 1988 - 1994.

JOURNAL PUBLICATIONS

1. "Linking Policies When Tastes Differ: Global Climate Policy in a Heterogeneous World." *Review of Environmental Economics and Policy*, forthcoming (with David Weisbach).
2. "Does the Indexing of Government Transfers Make Carbon Pricing Progressive?" *American Journal of Agricultural Economics*, forthcoming (with Don Fullerton and Garth Heutel).
3. "Distributional Impacts of Carbon Pricing: A General Equilibrium Approach with Micro-Data for Households," *Energy Economics*, forthcoming (with Sebastian Rausch and John M. Reilly).

4. "Paying for Greenhouse Gas Reductions: What Role for Fairness?" *Lewis & Clark Law Review*, 15:2 (2011): 393 - 415.
5. "Assessing the Federal Deduction for State and Local Tax Payments," *National Tax Journal*, 64:2, Part 2 (2011): 565 - 590.
6. "An Analysis of U.S. Greenhouse Gas Cap-and-Trade Proposals Using a Forward-Looking Economic Model," *Environment and Development Economics*, 16:2 (2011): 155 - 176 (with Angelo Gurgel, Sergey Paltsev, and John Reilly).
7. "Distributional Implications of Alternative U.S. Greenhouse Gas Control Measures," *B.E. Journal of Economic Analysis & Policy*, 10:2 Symposium (2010), Article 1 (with Sebastian Rausch, John Reilly and Sergey Paltsev).
8. "Investment in Energy Infrastructure and the Tax Code," *Tax Policy and the Economy*, 24(2010): 1 - 33.
9. "Cost Containment in Climate Change Policy: Alternative Approaches to Mitigating Price Volatility," *University of Virginia Tax Review*, 29:2 (2009): 381 – 405.
10. "Tax Policies for Low-Carbon Technologies," *National Tax Journal*, 62:3(2009): 519 - 533. (Republished in Italian as "La Politica Fiscale a Favore Delle Tecnologie a Basse Emissioni," *Energia* 3:4(2009): 64 – 75).
11. "Market-based Policy Options to Control U.S. Greenhouse Gas Emissions," *Journal of Economic Perspectives*, 23:2(2009): 5 – 27 (Reprinted in *Economics of the Environment: Selected Readings*, 6th edition, ed. Robert N. Stavins, New York: W.W. Norton & Company).
12. "The Incidence of a U.S. Carbon Tax: A Lifetime and Regional Analysis," *The Energy Journal*, 30:2(2009): 157- 179 (with Kevin Hassett and Aparna Mathur).
13. "The Design of a Carbon Tax," *Harvard Environmental Law Review*, 33:2(2009): 499 – 556 (with David Weisbach).
14. "Designing a Carbon Tax to Reduce U.S. Greenhouse Gas Emissions," *Review of Environmental Economics and Policy*, 3:1(2009): 63-83.
15. "Energy Tax Incentives and the Alternative Minimum Tax," *National Tax Journal*, 61:3(2008): 477-491 (with Curtis Carlson).

16. "Tax Policy for Financing Alternative Energy Equipment," *Journal of Equipment Lease Financing*, 28:2(2008): 1-7.
17. "An Empirical Analysis of Energy Intensity and Its Determinants at the State Level," *The Energy Journal*, 29:3(2008): 1-26.
18. "Using Tax Expenditures to Achieve Energy Policy Goals," *American Economic Review Papers and Proceedings*, 98(2008): 90-94.
19. "Assessment of US GHG Cap-and-Trade Proposals," *Climate Policy*, 8(2008): 395-420 (with Sergey Paltsev, John Reilly, Henry Jacoby, Angelo Gurgel, Andrei Sokolov, and Jennifer Holak).
20. "Corporate Tax Reform: Paying the Bills with a Carbon Tax," *Public Finance Review*, 35 (2007): 440-459.
21. "A Comment on the Role of Prices for Excludable Public Goods," *International Tax and Public Finance*, 14(2007): 685-698 (with Jongsang Park).
22. "Federal Tax Policy Towards Energy," *Tax Policy and the Economy*, 21(2007): 145-184.
23. "A Note on Weak Double Dividends," *Topics in Economic Analysis and Policy*, Vol 4: No. 1, Article 2 (2004). <http://www.bepress.com/bejeap/topics/vol4/iss1/art2> (with Mustafa H. Babiker and John Reilly).
24. "Pollution Taxes in a Second-Best World," *Baltic Journal of Economics*, 4(2003): 21-34.
25. "Oligopoly Deregulation and the Taxation of Commodities," *Contributions to Economic Analysis and Policy*, Vol. 2: No. 1, Article 12 (2003). <http://www.bepress.com/bejeap/contributions/vol2/iss1/art12> (with George Norman).
26. "Tax Distortions and Global Climate Policy," *Journal of Environmental Economics and Management*, 46(2003): 269-287 (with Mustafa Babiker and John Reilly).
27. "Cap and Trade Policies in the Presence of Monopoly and Distortionary Taxation," *Resource and Energy Economics*, 24(2002): 327-347 (with Don Fullerton).
28. "Environmental Levies and Distortionary Taxation: Pigou, Taxation, and Pollution," *Journal of Public Economics*, 87(2002): 313-322.

29. "Environmental Controls, Scarcity Rents, and Pre-Existing Distortions," *Journal of Public Economics*, 80(2001): 249-267 (with Don Fullerton). (Reprinted in *Environmental Policy Making in Economies with Prior Tax Distortions*, ed. Lawrence H. Goulder, Cheltenham, UK: Edward Elgar Publishing Ltd., 2002)
30. "A Distributional Analysis of Green Tax Reforms," *National Tax Journal*, 52(1999): 655-681. (Reprinted in *Distributional Effects of Environmental and Energy Policy*, ed. Don Fullerton, Farnham, UK: Ashgate, 2009)
31. "Investment with Uncertain Tax Policy: Does Random Tax Policy Discourage Investment?" *The Economic Journal*, 109(1999): 372- 393 (with Kevin Hassett).
32. "Measuring the Energy Savings From Home Improvement Investments: Evidence from Monthly Billing Data," *Review of Economics and Statistics*, 81(1999): 516-528 (with Kevin Hassett).
33. "Environmental Taxes and the Double-Dividend Hypothesis: Did You Really Expect Something for Nothing?" *Chicago-Kent Law Review*, 73(1998): 221-256 (with Don Fullerton).
34. "Value Added Taxation: A Tax Whose Time Has Come?", *Journal of Economic Perspectives* 9(1995): 121-140. (Reprinted in *Readings in Public Finance*, eds. S. Baker and C. Elliott, Cincinnati Oh.: South Western College Publishing, 1997)
35. "Can Irreversibility Explain the Slow Diffusion of Energy Saving Technologies?" *Energy Policy*, 24(1996): 7-8 (with Kevin Hassett).
36. "Specification Testing in Panel Data with Instrumental Variables," *Journal of Econometrics*, 71(1996): 291-308. (Reprinted in *Recent Developments in the Econometrics of Panel Data*, ed. B. Baltagi, Cheltenham, UK: Edward Elgar Publishing Ltd, 2002)
37. "Who Pays Broad-Based Energy Taxes? Computing Lifetime and Regional Incidence" *Energy Journal* 15(1994): 145-164 (with Nicholas Bull and Kevin Hassett).
38. "Investment under Alternative Return Assumptions: Comparing Random Walks and Mean Reversion," *Journal of Economic Dynamics and Control* 19(1995): 1471-1488 (with Kevin Hassett).
39. "The 'New' View of Investment Decisions and Public Policy Analysis: An Application to Green Lights and Cold Refrigerators," *Journal of Policy Analysis and Management*, 14(1995): 517-531 (with Donald Rosenthal).
40. "Economics and Rational Conservation Policy," *Energy Policy* 22(1994): 819-825.

41. "Energy Tax Credits and Residential Conservation Investment: Evidence from Panel Data," *Journal of Public Economics* 57(1995): 201-217 (with Kevin Hassett).
42. "Is a Value Added Tax Regressive? Annual Versus Lifetime Incidence Measures," *National Tax Journal* 47(1994): 731-746 (with Erik Caspersen). (Reprinted in *The Distribution of Tax Burdens*, eds. D. Fullerton and G.E. Metcalf, Cheltenham, UK: Edward Elgar Publishers, 2003)
43. "The Wall Street Journal Contests: The Experts, the Darts, and the Efficient Market Hypothesis," (with Burton Malkiel), *Applied Financial Economics* 4(1994): 371-374.
44. "Lifecycle vs. Annual Perspectives on the Incidence of a Value Added Tax," *Tax Policy and the Economy* 8(1994): 45-64.
45. "Federal Taxation and the Supply of State Debt," *Journal of Public Economics* 51(1993): 269-285.
46. "Tax Exporting, Federal Deductibility, and State Tax Structure," *Journal of Policy Analysis and Management* 12(1993): 109-126.
47. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy* 21(1993): 710-716 (with Kevin Hassett). (Reprinted in *The Economics of Energy*, ed. P. Stevens, Cheltenham, UK: Edward Elgar Publishers, 2000)
48. "Deductibility and Optimal State and Local Fiscal Policy," *Economics Letters* 39(1992): 217-221.
49. "The Optimal Rate of Privatization in a Dynamic Economy," *Public Finance* 47(1992): 172-183. (with Lorand Ambrus-Lakatos).
50. "Do Tax-Exempt Bonds Really Subsidize Municipal Capital?" *National Tax Journal* 44(1991): 71-80 (with Roger H. Gordon). (Reprinted in *Handbook of Debt Management*, ed. G. Miller, New York: Marcel Dekker Publishers, 1996)
51. "The Role of Federal Taxation in the Supply of Municipal Bonds: Evidence from Municipal Governments," *National Tax Journal* 44(1991): 57-70. (Reprinted in *Handbook of Debt Management*, ed. G. Miller, New York: Marcel Dekker Publishers, 1996)
52. "Arbitrage and the Savings Behavior of State Governments," *Review of Economics and Statistics* 72(1990): 390-396.

53. "The Effect of Federal Tax Deductibility on State and Local Taxes and Spending," *Journal of Political Economy* 95(1987):710-736 (with Martin S. Feldstein). (Reprinted in *The Economics of Fiscal Federalism and Local Finance*, ed. W. Oates, London: Edward Elgar Publishing Ltd, 1998)
54. "Cross-Media Transfers of Hazardous Wastes," *Northeastern Journal of Agricultural and Resource Economics* 13(1984):203-209 (with Daniel J. Dudek and Cleve E. Willis).

BOOKS

55. *U.S. Energy Tax Policy*, ed. Gilbert E. Metcalf, Cambridge: Cambridge University Press, 2010.
56. *Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use*, Committee on Health, Environmental, and Other External Costs and Benefits of Energy Production and Consumption, Washington, DC: The National Academies Press, 2009 (committee member).
57. *The Distribution of Tax Burdens*, eds. Don Fullerton and Gilbert E. Metcalf, London: E. Elgar Publishing, 2003.
58. *Behavioral and Distributional Effects of Environmental Policy*, eds. Carlo Carraro and Gilbert E. Metcalf, Chicago, IL: University of Chicago Press, 2001.

CHAPTERS IN BOOKS

59. "Introduction," in *U.S. Energy Tax Policy*, ed. Gilbert E. Metcalf, Cambridge: Cambridge University Press, 2010: 1 – 9.
60. "Distributional Impacts of a U.S. Greenhouse Gas Policy: A General Equilibrium Analysis of Carbon Pricing," in *U.S. Energy Tax Policy*, ed. Gilbert E. Metcalf, Cambridge: Cambridge University Press, 2010: 52 - 107 (with Sebastian Rausch, John Reilly and Sergey Paltsev).
61. "Environmental Taxation: What Have We Learned in This Decade?," in *Tax Policy Lessons From the 2000s*, ed. Alan Viard, AEI Press, 2009: 7-34.
62. "Tax Incidence," in *Handbook of Public Economics, Volume 4*, eds. Alan Auerbach and Martin Feldstein, Amsterdam: Elsevier Science B.V., 2002: 1787-1872 (with Don Fullerton).

63. "A Tax on Output of the Polluting Industry is not a Tax on Pollution: The Importance of Hitting the Target," in *Behavioral and Distributional Effects of Environmental Policy*, eds. Carlo Carraro and Gilbert E. Metcalf, Chicago, IL: University of Chicago Press, 2001: 13-38 (with Don Fullerton and Inkee Hong).
64. "Labor Supply and Welfare Effects of a Shift from Income to Consumption Taxation," in *Empirical Foundations of Household Taxation*, eds. M. Feldstein and J. Poterba, Chicago, IL: University of Chicago Press, 1996: 77-94.
65. "The Role of a Value-Added Tax in Fundamental Tax Reform," in M. Boskin, ed., *Frontiers of Tax Reform*, Stanford CA: Hoover Press, 1996: 91-109.
66. "The Lifetime Incidence of a Consumption Tax" in D. Bradford, ed., *Distributional Analysis of Tax Policy*, Washington DC: The AEI Press, 1995: 294-302.
67. "The Lifetime Incidence of State and Local Taxes: Measuring Changes During the 1980s," in *Tax Progressivity in the 1980s*, Joel Slemrod ed., New York: Cambridge University Press, 1994: 59-88.

OTHER PUBLISHED PAPERS

68. Letter to the Editor on the Rebound Effect, *The New Yorker*, January 17, 2011, page 3.
69. "Comments on Interactions Among Climate Policy Regulations," *Design and Implementation of U.S. Climate Policy*, eds. Don Fullerton and Catherine Wolfram, forthcoming.
70. "Will a New Administration Mean a New Policy on Climate Change?" *Tax Notes*, February 2, 2009 (with David Weisbach).
71. "Policy Options for Controlling Greenhouse Gas Emissions: Implications for Agriculture," *Choices* 23(2008)1: 34-37 (with John M. Reilly).
72. "The Whys and Hows of Energy Taxes," *Issues in Science and Technology*, Winter 2008, 5 pages (with Kevin A. Hassett).
73. "A Proposal for a U.S. Carbon Tax Swap: An Equitable Tax Reform to Address Global Climate Change," November 2007, Discussion Paper 2007-12, Hamilton Project, Brookings Institution.
74. "Renewable Resources – The Future of Financing Alternative Energy," Report prepared for the Equipment Leasing & Finance Foundation, October, 2007, 56 pages (with Paul Bent).

75. "An Energy Tax Policy for the Twenty-First Century," *IAEE Newsletter*, Third Quarter, July 2007, pp. 12-15 (with Kevin A. Hassett).
76. "A Green Employment Tax Swap: Using a Carbon Tax to Finance Payroll Tax Relief," A Brookings Institution -World Resources Institute Tax Reform, Energy and the Environment Policy Brief. June 2007, 8 pages. Available at http://pdf.wri.org/Brookings-WRI_GreenTaxSwap.pdf.
77. "Additional Thoughts on Federal Energy Tax Incentives," *Dialogue*, 15(1), March 2007, pp. 30-31.
78. "Distortions," entry in *International Encyclopedia of the Social Sciences*, Second edition, William A. Darity, ed., Farmington Hills, MI: Macmillan Reference USA, 2008, pp. 414-415.
79. "What Would a Rational Energy Tax Policy Look Like?" *Tax Analysts Special Supplement on Energy*, November 27, 2006, pp. 89-92 (with Kevin A. Hassett).
80. "Tax Solutions," Forum letter in *Issues in Science and Technology*, 22:3(2006): 20-22.
81. "Value-Added Taxation," entry in *New Palgrave Dictionary of Economics*, Second Edition, L. Blume and S. Durlauf, eds., London: Macmillan Ltd., 2008.
82. "Tax Incidence," entry in *New Palgrave Dictionary of Economics*, Second Edition, L. Blume and S. Durlauf, eds., London: Macmillan Ltd., 2008.
83. "Energy Efficiency," Final Proceedings of the Pew Center/NCEP Workshop on *The 10-50 Solution: Technologies and Policies for a Low-Carbon Future*, March 25-26, 2004.
84. Introduction to Symposium for NBER Conference, Advances in Empirical Environmental Policy Research," *Journal of Environmental Economics and Management*, 47(May 2004): 483-485.
85. "Environmental Taxes to Finance Capital Tax Reform," Redefining Progress Accurate Prices Program, Oakland, CA: Redefining Progress, November 2001 (with Kevin A. Hassett).
86. Review of Brännlund, R. and I. Gren, *Green Taxes: Economic Theory and Empirical Evidence From Scandinavia*, in *National Tax Journal*, 53(December 2000): 959-964.
87. Review of Aaron, H. and W. Gale, *Economic Effects of Fundamental Tax Reform*, in *National Tax Journal*, 51(June 1998): 399-404.

88. "The National Sales Tax: Who Bears the Burden?" Cato Policy Analysis No. 289, Washington, DC: Cato Institute, Dec. 8, 1997.
89. Review of Creedy, J., *Fiscal Policy and Social Welfare*, in *Journal of Economic Literature* 35(June 1997): 795-796.
90. "Consumption Taxation," entry in the *Encyclopedia of Taxation and Tax Policy*, Cordes, J., R. Ebel, and J. Gravelle, eds., Washington, DC: Urban Institute Press, 1999.
91. "Federal Tax Policy and Municipal Financial Behavior," *1988 Proceedings of the Eighty-First Annual Conference of the National Tax Association-Tax Institute of America*, Des Moines Iowa, 1989:109-114.
92. "Electroplating Firm Response to Pretreatment Regulations," *Proceedings of The First Annual Massachusetts Hazardous Waste Source Reduction Conference*, Office of Environmental Affairs, 1984, pp. 73-88 (with Daniel J. Dudek and Cleve E. Willis).
93. "The Demand for Regional Treatment, Storage, and Disposal Facilities," in *Toxic and Hazardous Waste, Proceedings of the Fifteenth Mid-Atlantic Industrial Waste Conference*, La Grega, M. and L. Hendrian ed., Butterworth Publishers, 1983, pp. 435-444 (with Daniel J. Dudek and Cleve E. Willis).

OP-ED PIECES

94. "Time to Remove the Roadblocks to a National Transmission Grid," *Investor's Business Daily*, October 26, 2010.
95. "Building a Renewable Bridge to Nowhere," *Investor's Business Daily*, January 26, 2009.
96. "Which Plan on Climate Change?" *The Boston Globe*, January 28, 2007.
97. "Fooled by the Shell Game," *The Boston Globe*, March 1, 2004.

ON-LINE COMMENTARY

98. "Distributional Impacts of Carbon Pricing: A General Equilibrium Approach with Micro Data for Households," VoxEU, June 10, 2011. Available at <http://www.voxeu.org/index.php?q=node/6629> (with Sebastian Rausch and John Reilly).
99. "The Distributional Burden of Cap and Trade," VoxEU, July 31, 2010. Available at <http://www.voxeu.org/index.php?q=node/5364> (with John Reilly, Sebastian Rausch, and Sergey Paltsev).

100. "Tax Policies for Low-Carbon Energy," VoxEU, June 27, 2009. Available at <http://www.voxeu.org/index.php?q=node/3706> .
101. "Plugging 21st Century Technology Into a 19th Century Grid System," VoxEU, January 26, 2009. Available at <http://www.voxeu.org/index.php?q=node/2829> .
102. "Breaking the Boom-Bust Oil Cycle," *The Vine, The New Republic's Environment and Energy Blog*, January 6, 2009. Available at <http://blogs.tnr.com/tnr/blogs/environmentandenergy/archive/2009/01/06/breaking-the-boom-bust-oil-cycle.aspx> (with Jason E. Bordoff).
103. "The Consumer Burden of a Cap-and-Trade System with Freely Allocated Permits," December 2008. Available at http://www.aei.org/publications/filter.all.pubID.29113/pub_detail.asp (with Kevin Hassett and Aparna Mathur).
104. "Taking a Closer Look at Energy Subsidies in the Federal Tax Code," *Resources for the Future Weekly Policy Commentary*, July 18, 2008. Available at http://www.rff.org/Publications/WPC/Pages/08_07_21_Metcalf_Energy_Subsidies.aspx (Reprinted in *Issues of the Day*, eds. Ian W.H. Parry and Felicia Day, 2010, Washington, DC: Resources For the Future, pp. 60-61).

WORKING PAPERS

105. "Distributional Impacts in a Comprehensive Climate Policy Package," NBER Working Paper No. 16101, June 2010 (with Aparna Mathur and Kevin Hassett).
106. "Financing a National Transmission Grid: What Are the Issues?" March, 2010.
107. "Cursed Resources? Political Conditions and Oil Market Volatility," NBER Working Paper No. 16614, December 2010 (with Catherine Wolfram).
108. "Think Locally, Act Locally: a Comment," October 2009.
109. "The Consumer Burden of A Carbon Tax On Gasoline," May, 2009 (with Kevin Hassett and Aparna Mathur).
110. "Analysis of U.S. Greenhouse Gas Tax Proposals," February 2008 MIT Joint Program on the Science and Policy of Global Change Discussion Paper 136 (with Sergey Paltsev, John Reilly, Henry Jacoby, Angelo Gurgel, Andrei Sokolov, and Jennifer Holak).

111. "Computing Tax Rates for Economic Modeling: A Global Dataset Approach," January 2007, MIT Joint Program on the Science and Policy of Global Change Technical Note (with Angelo Gurgel, Nicolas Osouf, and John Reilly).
112. "Comparing Tax Rates Using OECD and GTAP6 Data," May 2006, MIT Joint Program on the Science and Policy of Global Change Technical Note 7 (with Angelo Gurgel and John Reilly).
113. "Oligopoly Deregulation in General Equilibrium: A Tax Neutralization Result," August 2002, Tufts Working Paper 2002-10 (with George Norman).
114. "Household Energy Conservation Investment and the Uninformed Consumer Hypothesis," June 1999 (with Alexander M. Brill and Kevin A. Hassett).

CONSULTING

Deloitte & Touche, LLP, project on environmental taxes for the Chinese Ministry of Finance, 1999 - 2000.

U.S. Department of the Treasury, Office of Economic Policy, 1997.

Consultant, Argonne National Laboratory (Special Term Appointment), project work for Department of Energy, 1992 - 1995.

CONGRESSIONAL TESTIMONY

Invited Witness, Senate Committee on Energy and Natural Resources Hearing on Allocation of Greenhouse Gas Emission Allowances, October 21, 2009, Washington, DC.

Invited Witness, Senate Committee on Finance Hearing on Technology Neutrality Towards Energy in the Tax Code, April 23, 2009, Washington, DC.

Invited Witness, House Committee on Ways and Means Hearing on Addressing Price Volatility in Climate Change Legislation, March 26, 2009, Washington, DC.

Invited Witness, House Committee on Ways and Means Hearing on Fundamental Tax Reform, April 11, 2000, Washington, DC.

EXPERT REPORTS AND TESTIMONY

The Burlington Northern and Santa Fe Railway Company v. Assiniboine and Sioux Tribes of the Fort Peck Reservation, United States District Court for the District

of Montana Billings Division, CV-01-34-BLG. Retained by Reid Chambers of Sonosky, Chambers, Sachse, Endreson, and Perry, LLP to evaluate issues related to the Tribes' revenue structure. Expert report and deposition testimony on behalf of the Fort Peck Tribes.

Environmental Protection Agency v. U.S. Army, Fort Wainwright Central Heating and Power Plant, EPA Administrative Law Judge, CAA-10-99-0121. Retained by John McDonough, U.S. Army lawyer, to evaluate issues related to federal budget process and economic benefit involving violations of the Clean Air Act by federal installations. Expert report on behalf of Fort Wainwright.

AWARDS AND HONORS

Keynote Speaker, Fourth Atlantic Workshop on Energy and Environmental Economics. "Green Tax Reforms: What Happened to the Double Dividend?" A Toxa, Spain, July 2010.

Keynote Speaker, EuroFaculty Conference on Tax Policy in EU Candidate Countries on the Eve of Enlargement. "Pollution Taxes in a Second-Best World." Riga Latvia, September 2003.

National Science Foundation Grant, "Alternative Environmental Policies in a Second Best World: A General Equilibrium and Empirical Analysis," Grant No. SBR-9811324, \$240,364. October 1998 - September 2001 (with Don Fullerton).

National Science Foundation Grant, "Energy Consumption and the Returns to Energy Conservation," Grant No. SBR-9514989, \$42,528. July 1996 - June 1997.

National Science Foundation Grant, "Tax Policy, Irreversibility, and Energy Conservation Investment," Grant No. SES-9210407, \$196,073. August 1992 - July 1995 (with Kevin Hassett).

PROFESSIONAL ACTIVITIES

Member of Program Committee for the Association of Environmental and Resource Economists 2011 Summer Conference held in Seattle, Washington.

Organizer, American Tax Policy Institute Conference on U.S. Energy Tax Policy, Washington, DC, October 2009.

Presenter, Economy-Wide Price of Carbon Meeting, Massachusetts Department of Environmental Protection, Boston, MA, July 2009.

Carbon Tax Center Capitol Hill Briefing on Carbon Taxes, Washington, DC, December 2008.

Presenter, Friedrich Ebert Foundation and United Nations Financing for Development Office Workshop on Carbon Taxation, United Nations, New York, June 2008.

Presenter, Baruch College Public Affairs Week's evening event on Climate Change and U.S. Climate Policy, New York, March 2008.

Expert Reviewer, U.S. Energy Information Administration Report, "Federal Intervention and Subsidies in Energy Markets 2007," Washington, DC, February 2008.

Organizer, National Bureau of Economic Research Workshop on Energy Security, Cambridge, MA, February 2008.

Presenter, Florida House of Representatives Environment and Natural Resources Council Symposium on the Science and Economics of Climate Change, held in Tallahassee, FL, November 6, 2007.

Organizer, NBER Conference titled, "Advances in Empirical Environmental Policy Research," held in Newport, RI, May 2002.

Co-organizer, FEEM/NBER Conference titled, "Distributional and Behavioral Effects of Environmental Policy," held in Milan Italy, June 1999.

Invited Faculty, Center For Market Processes Legislative Staff Retreat, "The Economics of Taxation: Foundations for Reform," January 21 -22, 1998, Baltimore, MD.

Invited Faculty, House Committee on Ways and Means Issues Seminar on Tax Reform, March 1-3, 1996, Airlie House, Airlie, Virginia.

Member of Program Committee for the Eighty-Eighth Annual Conference of the National Tax Association, Boston, Massachusetts, November 1996.

Participant in the Stanford University Energy Modeling Forum Task Force on Energy Conservation, 1994.

Member of the Federal Taxation and Finance Committee of the National Tax Association, 1995 - 1998.

Outside referee for tenure and promotion cases at Duke University, Clark University, Harvard University, MIT, New York University, University of Massachusetts, Amherst, and Williams College.

RECENT CONFERENCE OR SEMINAR PRESENTATIONS

Yale University Environmental Economics Seminar Series, April 2011.

Tufts Energy and Climate Seminar Series, January 2011.

Ecole des Ponts ParisTech-CIRED Conference on Carbon Taxation, Paris, December 2010.

University of Connecticut Department of Economics Seminar, December 2010.

Murphy Lecture Series, Tulane University, New Orleans, LA, November 2010.

MIT Global Change Forum, Brussels, Belgium, October 2010.

World Bank Environment and Energy Group, Washington, DC, October 2010.

OxCarre Conference on the Management of Natural Resource Booms, Oxford, UK, September, 2010.

Energy Modeling Forum Climate Change Impacts and Integrated Assessment (CCI/IA),
Snowmass, Colorado, August, 2010.

Fourth Atlantic Workshop on Energy and Environmental Economics, A Toxa, Spain, July 2010.

NBER Design and Implementation of U.S. Climate Policy Conference, Washington, DC, May 2010.

MIT Center for Energy and Environmental Policy Research, Cambridge, MA, April 2010.

Council on Foreign Relations Conference on Energy Security, April 2010.

NBER Agricultural Policy Conference, Cambridge, MA (discussant), March 2010.

MIT Department of Economics Seminar, March 2010.

University of Chicago Energy Initiative-Resources for the Future-University of Illinois Energy
Policy Symposium on the Distributional Aspects of Energy and Climate Policy,
Washington, DC, January 2010.

MIT Center for Energy and Environmental Policy Research, Cambridge, MA, December 2009.

University of Illinois Law School Seminar, November 2009.

Columbia University Department of Economics Seminar, November 2009.

University of Chicago Harris School Seminar, November 2009.

American Tax Policy Institute Conference on U.S. Energy Tax Policy, Washington, DC,
October, 2009.

Wesleyan University Department of Economics Seminar, October 2009.

CIDE Conference, Los Desafíos de la Competitividad en Mexico 2009, Mexico City, September,
2009.

National Bureau of Economic Research Tax Policy and the Economy Conference, Washington,
DC, September, 2009.

University of Illinois Environmental Change Institute Cap and Trade Summit, Chicago, IL, May,
2009

Iowa State University Department of Economics, Ames, IA, May, 2009.

National Tax Association 39th Annual Spring Symposium, Washington, DC, May 2009.

American Economic Association Annual Meetings, San Francisco, January 2009.

Brookings Institution and Urban Institute, Conference on Tax Reform's Challenges and
Opportunities, Washington, DC, December 2008.

MIT Center for Energy and Environmental Policy Research, Energy and Environmental Policy
Workshop, Cambridge, MA, November 2008.

National Center for Environmental Economics, Environmental Protection Agency, November,
2008.

University of Illinois Department of Finance, Champaign-Urbana, IL, October, 2008.

American Enterprise Institute Conference on Tax Policy for the New Administration,
Washington, DC, May 2008.

National Tax Association 38th Annual Spring Symposium, Washington, DC, May 2008.

SELECT RECENT UNIVERSITY SERVICE

Chair, Department of Economics, 2002 – 2005.

Member, Tufts University Retirement Investment Advisory Committee, 2009 – 2011.

Member, Presidential Screening Committee to select slate of final candidates for next President of Tufts University, 2000 – 2001.

Chair, Presidential Task Force on the Undergraduate Experience, 2001 – 2003.