

## JONATHAN D. RUBIN

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### Education

Ph.D., Agricultural Economics, University of California, Davis, 1993  
M.A., Economics, University of Washington, 1987  
B.A., Economics, University of Rochester, New York 1984

### Fields of Interest

Environmental and Resource Economics, Transportation Energy, Transportation Policy

### Professional Experience

2002 to present	Interim Director, Margaret Chase Smith Policy Center, University of Maine
2001 to present	Associate Professor, Department of Resource Economics and Policy, University of Maine
1998 to 2001	Assistant Professor, Department of Resource Economics and Policy, University of Maine
1998 to 2002	Research Associate, Margaret Chase Smith Policy Center, University of Maine
1993 to 1998	Assistant Professor, Department of Economics, University of Tennessee.
1993 to 1998	Research Scientist, Energy, Environment and Resources Center, University of Tennessee
1987 to 1989	Research Assistant, Institute for Marine Studies, University of Washington

### Selected Grants and Sponsored Research

Teisl, Mario, Jonathan Rubin and Sue Jones, "Environmental Marketing of Green Vehicles: Exploring Effective Design and Performance," US EPA, NCER, \$399,979, 8/03 - 08/05.

Rubin, Jonathan, David Greene, Paul Leiby, "Tradable Fuel Economy Credits for Cars and Light Trucks," US Environmental Protection Agency, Office of Research and Development, NCER, \$177,247, January 1, 2003 - December 30, 2005.

Rubin, Jonathan, Deirdre Mageean, Kevin Boyle, "Measuring the Economic Damages from Oil Spills in Maine's Marine Economy," Maine Sea Grant, \$122,599, February 1, 2003 - January 31, 2005.

Pechenham, John, Jonathan Rubin, and Kevin Boyle, "MtBE in Groundwater: The Maine Experiment: Did the Reformulated Gasoline Policy Work?" U.S. Geological Survey, \$108,739, March 1, 2002 - February 28, 2004.

Mageean, Deirdre, Jonathan Rubin and Charles Morris, "Workplace and Tax Structure Affecting Economic Development in Maine," U.S. Department of Commerce, \$201,000, July 1, 2001 - June 30, 2002.

Rubin, Jonathan, Charles Morris, Suzanne Hart, "Project to Conduct Telephone Surveys to Determine Gasoline Consumption Attributable to Snowmobiles, ATVs and Watercraft," Commission to Study Equity in the Distribution of Gas Tax Revenues to Snowmobiles, All-Terrain Vehicles and Watercraft," \$72,575, October 15, 2000 - January 31, 2002.

Rubin, Jonathan, "Alternative Fuels Transition Model Project," U.S. Department of Energy and Energy Division, Oak Ridge National Laboratory, \$28,000 (1995), \$45,000 (1996), \$48,000 (1997/1998), \$50,000 (2000/2002).

Rubin, Jonathan and Paul Leiby, U.S. Department of Energy Grant, "Flexible Greenhouse Gas Emission Banking Systems," \$87,720, 1998 - 2000.

Reed, Gregory and Jonathan Rubin, Waste Management Research and Education Institute Grant "Episodic Ozone Control: Research on the Feasibility and Effectiveness in Tennessee," \$26,617, (1997-1998).

Jonathan Rubin and Gregory Reed, Waste Management Research and Education Institute Grant "Economic Implications of Proposed Ozone Ambient Air Quality Standards," \$30,499 (1996 -1997).

Rubin, Jonathan, and Jean Peretz, Scholarly Activities Incentive Fund Grant, University of Tennessee, 1994 \$3,000.

Kling, Catherine, Gloria Helfand and Jonathan Rubin, Universitywide Energy Research Group Grant, "Economic Efficiency of Marketable Credits for Introducing Alternative Transportation Fuels," \$23,700, (1992 - 1993).

### **Awards and Honors**

Poster Award: Label Format Effects on Consumers' Eco-Assessments of Passenger Vehicles. Mario F. Teisl, Jonathan Rubin and Caroline Noblet. Sponsor: U.S. Environmental Protection Agency Science Forum 2005 - (2nd place out of 232 submissions)

Outstanding Public Service Award, College of Natural Sciences, Forestry and Agriculture at the University of Maine, 2002.

Outstanding Published Research Award of the Western Agricultural Economics Association, 1998, with Catherine Kling, for "Bankable Permits for the Control of Environmental Pollution."

Rubin, Jonathan, University of California Transportation Center Dissertation Fellowship, 1992 - 1993.

Graduated, University of Rochester, High Distinction, Phi Beta Kappa, 1984.

## **Publications and Other Papers**

### *Refereed Journal Articles*

Lawler, Joshua J., Jonathan Rubin, Bernard J. Cosby, Ivan J. Fernandez, Jeffrey S. Kahl, Stephen A. Norton, "Predicting recovery from acidic deposition: Applying a modified TAF (Tracking Analysis Framework) Model to Maine (USA) High Elevation Lakes," *Water, Air, and Soil Pollution*, forthcoming.

Leiby, Paul and Jonathan Rubin, "Transitions in Light-Duty Vehicle Transportation: Alternative Fuel and Hybrid Vehicles and Learning," *Transportation Research Record*, Transportation Research Board, National Research Council, volume 1842(2003):127-134.

Leiby, Paul and Jonathan Rubin, "Effectiveness and Efficiency of Policies to Promote Alternative Fuel Vehicles," *Transportation Research Record*, Transportation Research Board, National Research Council, volume 1750(2001):84-91.

Leiby, Paul and Jonathan Rubin, "Bankable Permits for the Control of Stock and Flow Pollutants: Optimal Intertemporal Greenhouse Gas Emission Trading," *Environmental and Resource Economics*, 19 (2001): 229-256.

Rubin, Jonathan and Paul Leiby, "An Analysis of Alternative Fuel Credit Provisions of US Automotive Fuel Economy Standards" *Energy Policy*, volume 28, number 9, (July, 2000) pp. 589 - 602.

Roach, Brian, Jonathan Rubin, and Charlie Morris "Measuring Maine's Marine Economy," *Maine Policy Review*, Fall 1999:56-62.

Rubin, Jonathan, "Shifting Gears," *Forum for Applied Research and Public Policy*, 13(4):98-101.

Leiby, Paul and Jonathan Rubin, "The Transitional Alternative Fuels and Vehicles Model," *Transportation Research Record* 1587(1997): 10 - 18, Transportation Research Board, National Research Council

Kling, Catherine and Jonathan Rubin, "Bankable Permits for the Control of Environmental Pollution," *Journal of Public Economics* 64(1)(1997):99-113.

Rubin, Jonathan, "A Model of Intertemporal Emission Trading, Banking and Borrowing," *Journal of Environmental Economics and Management* 31(1996):269-286. Reprinted in *Environmental Instruments and Institutions*, United Kingdom, 1998 and reprinted in *The International Library of Environmental Economics and Policy*, Ashgate Publishing Limited, 2000.

Rubin, Jonathan, "Fuel Emission Standards for the Cost-Effective Use of Alternative Fuels in California," *Transportation Research Record*: 1444 (1994) Transportation Research Board, National Research Council.

Helfand, Gloria and Jonathan Rubin, "Spreading Versus Concentrating Damages: Environmental Policy in the Presence of Nonconvexities," *Journal of Environmental Economics and Management*, 27(1)(1995):84-91.

Rubin, Jonathan and Catherine Kling, "An Emission Saved is an Emission Earned: An Empirical Study of Emission Banking for Light-Duty Vehicle Manufacturers," *Journal of Environmental Economics and Management*, 25(3) (November, 1993), 257-274.

Rubin, Jonathan, Gloria Helfand and John Loomis, "A Benefit-Cost Analysis of the Northern Spotted Owl: Results from a Contingent Valuation Survey," *Journal of Forestry*, v. 89(12) (December 1991), pp. 25-30.

Innes, Robert, Catherine Kling, and Jonathan Rubin, "Emission Permits Under Monopoly," *Natural Resource Modeling*, v. 5(3) (Summer 1991), pp. 321-343.

*Invited, Working and Miscellaneous Papers, Book Chapters*

Rubin, Jonathan, "Transportation and Rural Land Use Change," in *The Economics of Rural Land Use Change*, Bell, Kathleen, Kevin Boyle, and Jonathan Rubin, (Eds.) Ashgate Press, forthcoming.

Mario F. Teisl, Caroline L. Noblet and Jonathan Rubin 2005. The design and implementation of effective environmental information policies. Proceedings of The Role of Labeling in the Governance of Global Trade: The Developing Economy Perspective Conference – Invited paper. March 17-19. Bonn Germany.

Peckenham, J., J. Rubin, and C. Clavet (2005), "Maine's Experiment With Gasoline Policy to Manage MtBE in Groundwater," in Calabrese, E., P. Kostecki, and J. Dragun,( eds.), *Proceedings of the 20th Conference on Contaminated Soils, Sediments, and Water*, Volume10, Springer Science and Business Media, 2004.

Leiby, Paul N. and Jonathan Rubin, "Understanding the Transition To New Fuels and Vehicles: Lessons Learned from Analysis and Experience of Alternative Fuel and Hybrid Vehicles," *The Hydrogen Transition*, Daniel Sperling and Jim Cannon (eds.) Elsevier Academic Press, 2004. ISBN 0126568812.

Teisl, Mario F., Jonathan Rubin, Caroline Noblet, Lynn Cayting, Melissa Morrill, Thomas Brown, and Sue Jones, "Designing Effective Environmental Labels for Passenger Vehicle Sales in Maine, Results of Focus Group Research, Maine Agricultural and Forest Experiment Station report 434, 2004.

Rubin, Jonathan, "Increasing the Flexibility of Transportation Energy Sources for Improved Security, Reduced GHG'S & Cleaner Air," *TR News* 226 (2003): 16-23, Transportation Research Board, The National Academy of Sciences.

Paul N. Leiby, Jonathan Rubin, and David Bowman, 2002. "Efficacy of Policies to Promote New Vehicle Technologies: Alternative Fuel Vehicles and Hybrid Vehicles," Proceedings of the 25th Annual IAEE International Conference, June 26-29, Aberdeen, Scotland.

Rubin, Jonathan, Suzanne Hart, Charles Morris, "Gasoline Consumption Attributable to ATVs in Maine," prepared for the Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All Terrain Vehicles and Watercraft, Maine State Legislature, June 21, 2001.

Rubin, Jonathan, Suzanne K. Hart and Charles Morris, "Gasoline Consumption Attributable to Snowmobile Use in Maine," prepared for the Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All Terrain Vehicles and Watercraft, State of Maine, July 16, 2001.

Rubin, Jonathan, Suzanne K. Hark and Charles Morris, "Gasoline Consumption Attributable to Gasoline Powered Watercraft Use in Maine," prepared for the Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All Terrain Vehicles and Watercraft, State of Maine, November 20, 2001.

Rubin, Jonathan and Paul Leiby, "Flexible Greenhouse Gas Emission Banking Systems," *Maine Agricultural & Forest Experiment Station Miscellaneous Report*, Number 427, April 2002.

Leiby, Paul and Jonathan Rubin, "The Alternative Fuel Transition: Results from the TAFV Model of Alternative Fuel Use in Light-Duty Vehicles 1996 -2010", Final Report - TAFV Version 1, *Maine Agricultural And Forest Experiment Station Miscellaneous Report*, Number 417, September 2000.

Leiby, Paul and Jonathan Rubin, "Sustainable Transportation: Analyzing the Transition to Alternative Fuel Vehicles," in *Transportation Research Circular*, Number 492, pp. 54-82, Transportation Research Board, National Research Council, August 1999.

Das, Sujit, T. Randall Curlee, Donald W. Jones, Paul Leiby, Jonathan Rubin, Susan M. Schexnayder, David P. Voit, Any Wolfe, "Supporting Infrastructure and Acceptability Issues for Materials Used in New Generation Vehicles, Energy Division, Oak Ridge National Laboratory, ORNL/TM-13731, March 1999.

Leiby, Paul and Jonathan Rubin, "Analyzing the Transition to Alternative Fuel Vehicles," Prepared for U.S. Department of Energy, Office of Energy Efficiency and Alternative Fuels and Office of Transportation Technology, Draft June 20, 1997

Paul Leiby and Jonathan Rubin, "Technical Documentation of the Transitional Alternative Fuels and Vehicles (TAFV) Model," May 1997.

Barkenbus, Jack, Jean H. Peretz, and Jonathan Rubin, "More on the Agenda: Commentary on Re-Examining Environmental Justice," *Social Science Quarterly* 73(3)(1996).

Thomas Leschine, Laura Geselbracht, and Jonathan Rubin, "Oil Spill Damage Assessment: Policy Recommendations and Summary of Findings," report to the Washington State Legislature, Institute for Marine Studies, University of Washington, final report June 1989.

Rubin, Jonathan, "Economic Issues and Valuation Concepts for Natural Resource Damages and an Analysis of Washington's Assessment Procedures," prepared for the Oil Spill Damage Assessment Study, Institute for Marine Studies, University of Washington, final report April 1989.

Rubin, Jonathan, "Petroleum Toxicity and Fate in the Marine Environment with Implications for the Development of a Compensation Schedule for Spilled Oil," prepared for the Oil Spill Damage Assessment Study, Institute for Marine Studies, University of Washington, final report March 1989.

*Papers Presented at Professional Meetings*

Mario F. Teisl, Caroline L. Noblet and Jonathan Rubin. 2005. The effect of green labels on consumer preferences U.S. Environmental Protection Agency Science Forum 2005, Washington DC May 17.

Jonathan Rubin, Paul Leiby, David Greene, "Analysis of Tradable Corporate Average Fuel Economy Credit Systems," presentation Transportation Research Board, 84th Annual Meeting, Washington, D.C., January 9–13, 2005.

Paul Leiby, Jonathan Rubin and David Greene, "Tradable Fuel Economy Credits for Cars and Light Trucks," presentation Annual Meeting, Allied Social Science Associations, Philadelphia, PA, January 7-9, 2005.

Mario Teisl, Caroline Noblet, Jonathan Rubin, and Alice White-Cyr, "Designing an Eco-Marketing Program for Passenger Vehicles: What is the likelihood of success?" CU Environmental and Resource Economics Workshop October 22 - 23, Vail, Colorado

Paul Leiby, Jonathan Rubin, David L. Greene, "Tradable/Bankable Fuel Economy Credits for Cars and Light Trucks," presented at the 24th Annual North American Conference, United States Association for Energy Economics and the International Association for Energy Economics, July 8 - 10, 2004, Capital Hilton Hotel.

Cecilia Clavet, Jonathan Rubin, John M. Peckenham, "Was MtBE a Costly Mistake? The Evidence from Maine," Northeastern Agricultural and Resource Association 2004 Annual Meeting, Halifax, Nova Scotia, at the Delta Halifax hotel on June 20 - 23.

Rubin, Jonathan, David L. Greene, Paul N. Leiby, "Tradable/Bankable Fuel Economy Credits for Cars and Light Trucks," presented at 23rd International Association for Energy Economics North American Conference, Camino Real Hotel, Mexico City, October 19-21 2003

Paul Leiby and Jonathan Rubin, "Transition Modeling of AFVs and Hybrids: Lessons Learned," IX Biennial Conference on Transportation and Energy: The Hydrogen Transition, U.S. Department of Energy, Natural Resources Canada, University of California Transportation Center, Energy Foundation, July 29 - August 1, 2003, Asilomar Conference Center Pacific Grove, California.

Paul Leiby and Jonathan Rubin, "Transitions in Light-Duty Vehicle Transportation: Alternative Fuel and Hybrid Vehicles and Learning," presented at Transportation Research Board 82<sup>nd</sup> Annual Meeting, January 12-16, 2003, Washington, DC.

Rubin, Jonathan and Paul Leiby, "Transitions in Light-Duty Vehicle Transportation: A Comparison of Alternative Fuel and Hybrid Vehicles," The 2002 Joint Statistical Meetings, August 11-15, 2002 New York, New York.

Rubin, Jonathan and Paul Leiby, "Hybrid Vehicles and Endogenous Learning," short presentation in Research Sketches Session, National Bureau of Economic Research, Inc. Summer Institute 2002 Workshop on Public Policy and the Environment, Royal Sonesta Hotel, Cambridge, Massachusetts, July

29-30, 2002.

Leiby, Paul and Jonathan Rubin, "Transition Modeling: A Comparison of Alternative Fuel and Hybrid Vehicles," TRB Summer Meeting 2002, Energy, Air Quality and Alternative Fuels Committees, Thomas Edison Inn, Port Huron, Michigan, July 7-9, 2002.

Warlimont, Petra and Jonathan Rubin, "Valuation of Damages to Maine's Lakes from Acid Deposition as Part of an Integrated Assessment," presented at the Northeastern Agricultural and Resource Economics Association 2001 Annual Meeting, Bar Harbor, Maine June 10-12, 2001.

Rubin, Jonathan, Joshua J. Lawler, Bernard. J. Cosby, Jeffrey S. Kahl, "Predicting the Effects of Varying Acid Deposition Scenarios on the High Elevation Lakes of Maine," Maine Water Conference 2001, Augusta Civic Center, Maine, May 3, 2001.

Norman, Carol H., Gregory D. Reed, Terry L. Miller, Wayne T. Davis, Jonathan Rubin, "Episodic Ozone Controls: Their Impact and Cost-Effectiveness," Air and Waste Management Association 2001 Annual Conference and Exhibition June 24-28, Orlando, Florida.

Leiby, Paul and Jonathan Rubin, "Effectiveness and Efficiency of Policies to Promote Alternative Fuel Vehicles," Transportation Research Board 80th Annual Meeting, Washington, DC, January 6 -11, 2001.

Rubin, Jonathan and Paul Leiby, "Analysis of Alternative Fuel Credit Provisions of U.S. Automotive Fuel Economy Standards," Transportation Research Board 80th Annual Meeting, Washington, DC, January 6 -11, 2001.

Paul Leiby and Jonathan Rubin, "Efficient Greenhouse Gas Emission Banking Systems," AERE invited session on Market Based Instruments, Allied Social Science Association 2000 Annual Meeting, January 7-9, Boston MA

Leiby, Paul and Jonathan Rubin, "Transitional Barriers to Introducing New Technologies" invited presentation at Transportation Energy and Environmental Policy for the 21st Century, August 24-27, 1999, Asilomar Conference Center, Monterey, California

Leiby, Paul and Jonathan Rubin, "Dynamic Analysis of Achievable Potential and Costs for Alternative Fuel Vehicles," invited presentation at the International Energy Agency International Workshop on Technologies to Reduce Greenhouse Gas Emissions, Washington, D.C., May 6-7, 1999.

Leiby, Paul and Jonathan Rubin, "Alternative Fueled Vehicles and the EPACT Fuel-Replacement Goals: What Needs to Happen to Get There?," invited presentation at the 1999 Society for Automotive Engineers International 1999 Government/Industry Meeting, Panel on Alternative Fueled Vehicles and the Replacement of Fuel Goals, April 27 1999, Washington, D.C.

Leiby, Paul and Jonathan Rubin, "Modeling Emissions Trading Among GHGs and Criteria Pollutants," Presented at the Transportation Research Board 87th Annual Meeting, January 12 1999

Leiby, Paul and Jonathan Rubin, "Alternative Fuel Vehicle Production and Use for CAFE Credits," presented at Transportation Research Board Workshop on Air Quality Impacts of Conventional and

Alternative Fuel Vehicles, Ann Arbor, Michigan August 2-4.

Leiby, Paul and Jonathan Rubin, "Efficient Greenhouse Gas Emission Banking and Borrowing Systems, presented at 1998 Western Economic Association International 73<sup>rd</sup> Annual Conference, Lake Tahoe.

Leiby, Paul and Jonathan Rubin, "Sustainable Transportation: Analyzing the Transition to Alternative Fuel Vehicles," Policies for Fostering Sustainable Transportation Technologies, sponsored by the USDOE and USDOT, Asilomar Conference Center, August 17-20, 1997.

Leiby, Paul and Jonathan Rubin, "The Transitional Alternative Fuels and Vehicles Model," Transportation Research Board 76th Annual Meeting, Washington, D.C., January 16, 1997.

Kling, Catherine and Jonathan Rubin, "Bankable Permits for the Control of Environmental Pollution," Allied Social Science Associations Meeting in San Francisco, January 1996.

Collins, Jeffery, Robert Bohm, Jonathan Rubin and Jean Peretz, "The Cross-Industry Effects of Environmental Regulation on Manufacturing Productivity," Allied Social Science Associations Meeting in Washington, D.C. January 1995.

Rubin, Jonathan, "Fuel Emission Standards and the Cost Effective Use of Alternative Fuels in California," Transportation Research Board 73rd Annual Meeting, Washington D.C., January 9-13, 1994.

Helfand, Gloria and Jonathan Rubin, "The Forest or the Trees: Multiple Use, Dominant Use, and the Importance of Nonconvexities," Allied Social Science Associations Meeting in Washington, D.C. December 29, 1990.

Leschine, Thomas, Laura Geselbracht, and Jonathan Rubin, "A Proposed Resource Damage Assessment Methodology for Washington State," 1989 Oil Spill Conference Proceedings, San Antonio, Texas, February 13-16, 1989 (American Petroleum Institute, Washington, D.C.).

### **Selected Media Appearances**

WERU, 89.9 (Blue Hill) and 102.6, (Bangor), radio "Conversation on Science," with Jim Campbell, April 5, 2005.

WERU 89.9 FM (Blue Hill) and 102.9 FM (Bangor) radio, "Talk of the Towns," with Ron Beard, October 15, 2004.

Channel 2, WLBZ, (Bangor), WCHS 6 (Portland) NBC television, September 22, 2004.

Maine in the Morning, WVOM radio, September 23, 2004.

Channel 7, WVII ABC television (Maine) , September 22, 2004, TV.

Channel 7 WVII ABC television (Maine), Gasoline prices February 9, 2003, 11:00 News

Maine Public Radio, seven stations, July 25, 2003,

Michigan Public Radio 91.7 Ann Arbor, Detroit/91.1, Flint/104.1 Grand Rapids, October 2, 2003.

WABI TV Channel 5 television (Bangor), January 17, 2001.

### **Selected Public Service**

Testimony, Joint Standing Committee on Appropriations and Financial Affairs (Maine), May 16, 2005

Testimony, Joint Standing Committee on Inland Fisheries and Wildlife (Maine), February 11, 2002.  
Testimony, Commission to Study the Impact of a Maine-based Casino on the Economy, Transportation Infrastructure, State Revenue and Job Market, September 30, 2002.  
Testimony, Maine Commission to Study Equity in the Distribution of Gas Tax Revenues Attributable to Snowmobiles, All-Terrain Vehicles and Watercraft, April 9th, July 26th, November 20th, December 17th, 2001.  
Member, Transportation and Land Use Committee, Maine Greenhouse Gas Initiative Stakeholder Advisory Group

### **Professional Affiliations**

American Economics Association  
International Association for Energy Economics  
Association of Environmental and Resource Economists  
Committee on Alternative Fuels, Transportation Research Board, NRC  
Secretary - Committee on Transportation Energy, Transportation Research Board, NRC