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Resume

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Professor Emeritus

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Education

B.S. 1968, University of California, Davis
Major: Resource Management

M.S. 1971, University of California, Davis
Major: Agricultural Economics

Ph.D. 1975, University of California, Davis
Major: Agricultural Economics

Fields of Study: Production Economics, Resource Economics, Public Finance, Operations Research

Past Employment and Experience

July 1971 - July 1975. Research Assistant, Agricultural Economist, University of California, Davis.

August 1975 - August 1983. Assistant-Associate Professor, Division of Agricultural Economics, University of Wyoming. Joint research-teaching (67%-33%) appointment.

Participated in a two-year change of assignment from 8/81 to 8/83 at USEPA, Corvallis Environmental Research Laboratory (CERL) between the University of Wyoming and USEPA. Directed economic research on air quality control benefits for the National Crop Loss Assessment Network (NCLAN), an interdisciplinary task force funded by USEPA.

August 1983 to 2006. Professor of Agricultural and Resource Economics, Oregon State University. Professor Emeritus, 2006. Joint teaching-research position (25%-75%). Current research interests include: 1) economic assessments of effects of environmental change on agricultural and natural ecosystems; 2) and assessments of agricultural costs and social benefits of reducing groundwater pollution from agriculture; 3) valuation of water across competing uses. Teaching responsibilities include courses in resource and environmental economics.

Additional Employment Experience

- Consultant, University of California, Davis. Consulted and collaborated on an analysis of the impacts of the electrical energy adjustments (price and quantity) on California's irrigated agricultural subsector. June 1976.
- Consultant, USDA, ERS, NRED. Washington, D.C. Assisted NRED in assessing feasibility of quadratic programming methodology in resource projection research. August 1976.
- Consultant, Northwest Economic Associates, Vancouver, Washington. Involved in the assessment of the importance of land-related factors on the competitive position of northwest agriculture. 1979.
- Consultant, CH2M-Hill. Sacramento. Critically evaluated the methodological framework for a water reuse feasibility study. Provided technical assistance in report preparation. 1980.
- Consultant, USEPA, Corvallis Environmental Research Laboratory. Evaluated the feasibility of a national air pollution crop loss assessment plan proposed by CERL. Represented CERL at EPA policy meeting in Durham, North Carolina. August 1980.
- Consultant, Mathtech, Inc., Princeton, New Jersey. Assisted Mathtech in development of a crop loss damage assessment framework. Provided guidance on modeling of specific agricultural commodity supply relationships. 1981.
- Consultant, USEPA, Corvallis Environmental Research Laboratory. Provide economic guidance on development and implementation of National Crop Loss Assessment Network. Served as a member of Research Management Committee. 1981.
- Consultant, Hutchins Farms, Inc., Fruita, Colorado. Evaluate the feasibility of alternative land investment programs for an integrated crop-livestock operations. 1982.
- Consultant, North Carolina State University. Review and provide public testimony on Acidic Deposition Critical Assessment Document review. Federal Task Force Critical Assessment Document public hearing, Raleigh, North Carolina. 1982.
- Consultant, Biospherics, Inc., Rockville, Maryland. Prepare chapters on economics of vegetation and ecosystem damages for USEPA's Oxidant Criteria Document. 1982-1983.
- Consultant, Brookhaven National Laboratory, Upton, New York. Provide critical review and guidance on BNL's proposed acid deposition research program on agricultural effects. 1983.
- Consultant, Northrop Service, Inc., Research Triangle Park, North Carolina. Participate in the preparation and review of manuscript on the environmental effects of particulates on visibility and climate. 1984.
- Consultant, Battelle Pacific Northwest Laboratories. Develop and implement an assessment framework to estimate the economic consequences of acid deposition control on U.S. agriculture. 1984-1985.
- Consultant, Northwest Economic Associates, Vancouver, Washington. Assess the recreational fishery benefits of alternative dredging and maintenance operations at seven Oregon ports. July-September 1987.

Consultant, Energy and Resources, Inc., Boulder, Colorado. Assist in conceptualizing and implementing economic assessments of air pollution damages to major annual and perennial crops for the California Air Resources Board.

Consultant, KilKelly Environmental Associates, Raleigh, North Carolina. Evaluate the economic effects of selected global climate change scenarios on U.S. agriculture. 1988.

Consultant, The Research Group, Corvallis, Oregon. Assist in the design and implementation of travel cost and contingent valuation of Oregon sport anglers. 1988.

Consultant, Argonne National Laboratory. Participate in programs to assist developing countries assess vulnerability to climate change. 1993-94.

Consultant, Industrial Economics, Inc. Provide review and comments on EPRI climate change program. 1993-96.

Consultant, ICF, Inc. Assess agricultural and forestry vulnerability to climate change. 1995-1996.

Expert Witness in Colorado vs. Kansas (in the Supreme Court of the United States). Provide evaluation and testimony concerning the value of water in agriculture. July 1998 to March 2002.

Consultant, Center for Agricultural Resources and Development (CARD), Iowa State University, 2000-2002.

Consultant, Stratus Consulting, Inc., Boulder, Colorado. Provided external review and assistance on various projects. 1995-2006.

Consultant, Battelle Pacific Northwest Laboratories. Provide external review and comment as requested on Battelle resource economic programs. 1987-2004.

Consultant, U.S. Department of Commerce, NOAA. Provide external review of NOAA climate change-ENSO forecast programs. Conduct economic analyses as needed. On-going.

Consultant, Entrix, Inc., Vancouver, WA. Provide technical support as needed. On-going.

Consultant, Industrial Economics, Inc. Cambridge, MA. Provide technical support as needed. On-going.

Consultant, California Bay-Delta Authority. Provide technical support as needed on a series of CALFED funded projects in the California Delta and adjacent areas. On-going.

Consultant, Coachella Valley Water District, Member of Water Advisory Committee. On-going.

Teaching/Graduate Student Supervision

Current Teaching

AREc 551 Resource Economics

Past Teaching

In addition to the courses listed above, taught courses in environmental economics, applied welfare analysis, agricultural development, production economics, mathematical programming and research methods.

Theses and Dissertations Directed at Oregon State University since 1983 (27)

Scott Hamilton, PhD, 1984	Chris Costello, MS, 1996
Mario Niklitschek, MS, 1985	Seonghoon Cho, MS, 1996
Neal Johnson, MS, 1987	Brent Mahan, MS, 1996
Jeffery Connor, MS, 1987	Harold Seely, MS, 1997
Arcadio Cerda, MS, 1988	Erik Knoder, MS, 1998
Scott Johnson, PhD, 1989	Susan Burke, PhD, 1999
Michael Taylor, PhD, 1990	Gwendolyn Aldrich, MS, 2002
Arcadio Cerda, PhD, 1991	Michio Watanabe, PhD, 2003
Seonghoon Hong, PhD, 1991	Barbara Wyse, MS, 2004
Brett Fried, MS, 1992	Saichon Seedang, PhD, 2005 (in Environmental Science program)
Robert Berrens, PhD, 1993	Benjamin Rashford, PhD, 2006
Pei-chen Lin, MS, 1994	Randall Dell, MS, 2006
Roger Martini, MS, 1995	Dannele Peck, PhD, 2006
Ronald Fleming, PhD, 1995	

Approximately 50 percent of peer-reviewed journal articles published since 1983 were co-authored with the graduate students listed above (see list of journal articles for specific articles). In addition, served as a committee member/minor professor on 48 MS and PhD committees within the AREc department. In total, served on 40 percent of all graduate committees within AREc between 1984 and 2006.

Publications

Books and Chapters in Books

1. Adams, R.M. and T.D. Crocker. "Analytical Issues in Economic Assessment of Vegetation Damages." In: *Crop Loss Assessment*. P.S. Teng and S.V. Krupa, eds. University of Minnesota Press. Minnesota. 1981.
2. Adams, R.M. and T.D. Crocker. "Economically Relevant Ecosystem Response Estimation and the Value of Information: Acid Deposition." In: *Economic Perspectives on Acid Deposition Control*. T.D. Crocker, ed. Ann Arbor Science—Butterworth Publishers. January 1984, pp. 35-64.
3. Adams, R.M., T.D. Crocker and R.W. Katz. "Yield Response Data in Benefit-Cost Analysis of Pollution-Induced Vegetation Damage." In: *Sulfur Dioxide and Vegetation: Physiology, Ecology and Policy Issues*. W.T. Winner, H.A. Mooney and R.A. Goldstein, eds. Stanford University, 1985, pp. 56-72.
4. Adams, R.M. "Models and Data Requirements for Measuring the Economic Consequences of UV-B Radiation on Agriculture." In: *Stratospheric Ozone Reduction, Solar Ultraviolet Radiation and Plant Life*. R.C. Worrest and M. Caldwell, eds. Springer-Verlag Publishers, Berlin, 1986. pp. 345-359.
5. Adams, R.M., J.D. Glycer and B.A. McCarl. "The NCLAN Economic Assessment: Approach Findings and Implications." In: *Assessment of Crop Loss from Air Pollutants*. W.W. Heck, D.T. Tingey and O.C. Taylor, eds. Elsevier Applied Science Press, London, 1988. pp. 473-504.
6. Adams, R.M. and T.D. Crocker. "Model Requirements for Economic Evaluations of Pollution Impacts on Agriculture." In: *Assessment of Crop Loss from Air Pollutants*. W.W. Heck, D.T. Tingey and O.C. Taylor, eds. Elsevier Applied Science Press, London, 1988. pp. 463-472.
7. Adams, R.M. "Estimated Economic Consequences of Ozone in Agriculture: Some Evidence from the U.S." In: *Atmospheric Ozone Research and Its Policy Implications*, T.D. Schneider, ed. Elsevier Science Publishers, Amsterdam, 1989. pp. 869-879.
8. McCarl, B.A., D. Brown, R.M. Adams and J. Pheasant. "Linking Farm and Sectoral Models in Spatial Equilibrium Analyses: An Application of Ozone Standards as They Affect Corn Belt Agriculture." In:

- Quantitative Methods for Market Oriented Economic Analysis Over Space and Time*. W. Labys, T. Takayama and N. Uri, eds. Avebury Press, Aldershot, England, 1989.
9. Adams, R.M. and T.D. Crocker. "Materials Damages." Chapter IX. In: *Measuring the Demand for Environmental Quality*. C.D. Kolstad and J. Braden, eds. North-Holland Publishers, 1991. pp. 271-302.
 10. Adams, R.M. and T.D. Crocker. "The Economic Impact of Air Pollution on Agriculture: An Assessment and Review." Chapter 10 in *Towards Sustainable Agricultural Development*. M.D. Young, ed. Belhaven Press, 1991. pp. 293-319.
 11. Adams, R.M., C. Chang, B.A. McCarl and J.M. Callaway. "The Role of Agriculture in Climate Change: An Evaluation of Emission Control Strategies." Chapter 15 in *Economic Issues in Global Climate Change: Agriculture, Forestry and Natural Resources*. J. Reilly and M. Anderson, eds. Westview Press, 1992. pp. 273-287.
 12. Whittlesey, N., D. Bernardo, J. Hamilton and R. Adams. "Irrigation Management Under Drought Conditions." Chapter 12 in *Management of Water Use in Agriculture*. K. Tanji and B. Yaron, eds. Springer-Verlag Publishers, Berlin, March 1994.
 13. McCarl, B., C. Chang and R.M. Adams. "Climate Change and Texas Agriculture." Chapter 8 in *Implication of Climate Change and Texas*. G.R. North, J. Schmandt and J. Clarkson, eds. University of Texas Press, Fall 1994.
 14. L. Canter, C. Abdulla, R.M. Adams, et al. *Valuing Groundwater: Economic Concepts and Applications*. National Academy Press, Washington DC, 1997.
 15. Burke, S., R.M. Adams and A. Draper. "Estimating Economic and Environmental Benefits of Water Markets in a Spatially Diverse Setting" in *Conflict and Cooperation on Trans-boundary Water Resources*, R. Just and S. Netanyahu, eds. Kluwer Academic Publishers, Boston, 1998.
 16. Adams, R.M., et al. "The Economic Effects of Climate Change on Agriculture," Chapter 2 in *Effects of Climate Change on the U. S. Economy*, R. Mendelsohn and J. Neumann, eds. Cambridge University Press, New York, 1999.
 17. Adams, R.M., C.C. Chen, B.A. McCarl and D.E. Schimmelpfenning. "Climate Variability and Climate Change" in *Advances in the Economics of Environmental Resources*, Vol. 3. D. Hall and R. Howarth, eds. JAI Press, London, 2001. pp. 115-148.
 18. Adams, R.M. and B. Hurd. "Climate Change and Agriculture." Chapter 1.6 in *Encyclopedia of Life Support Systems*. Oxford, UK, 2006.
 19. Adams, R.M. and B.A. McCarl. "Agronomic and Economic Effects of Climate Change." Chapter in *Global Warming and the American Economy*. R. Mendelsohn, ed. Edward Elgar Publishing, 2001. pp. 18-32.
 20. Adams, R.M., B. Hurd and J. Reilly. "Impacts on the Agricultural Sector." Chapter 3 in *Climate Change: Science, Solutions and Strategies*. E. Claussen, V. Cochran, Editors. Pew Center for Climate Change (2001). pp. 25-42.
 21. Adams, R.M. and B.A. McCarl. "Agriculture: Agroeconomic Analysis" Chapter 2 in *Global Warming and the American Economy: A Regional Assessment of Climate Change*. Robert Mendelsohn, ed. Edward Elgar Publishing, England (2001).
 22. McCarl, B.A., R.M. Adams and B. Hurd. "Global Climate Change and Its Impact on Agriculture." In *Encyclopedia of Life Support Systems*. C. Chang and C. Huang. UNESCO, 2001.

23. Adams, R.M. (contributing author) *Agriculture: the Potential Consequences of Climate Variability and Change*. J.M. Reilly, Ed. Cambridge University Press, 2002.
24. Wu, JunJie and Richard M. Adams. "Production Risks, Acreage Decisions and Implications for Revenue Insurance Programs." In *Risk Management and the Environment: Agriculture in Perspective*. B.A. Babcock, R.W. Fraser and J. N. Lekakis, eds. Kluwer Academic Publishers, Boston, 2003.
25. Adams, R.M. "Economic Effects of Ozone on Managed and Natural Ecosystems." Chapter in *Ozone Criteria Document*. USEPA. 2003.
26. Lewis, W.M. Jr, R.M. Adams, et al. *Endangered and Threatened Fishes of the Klamath River Basin*. National Academy of Sciences Press, Washington DC, 2004.
27. Smerdon, E.T., R.M. Adams et al. *Managing the Columbia River: In-stream Flows, Water Withdrawals, and Salmon Survival*. National Academy of Sciences Press, Washington DC, 2004.
28. Adams, R.M., J. Wu and L.L. Houston. "Changes in Crop Yields and Irrigation Demand." Chapter 9 in *The Effects of Climate Change on Regional Systems*. R. Mendelsohn and J. Smith, eds. Edward Elgar Publishers, 2006.
29. Adams, R.M. and D.E. Peck. "Effects of Climate Change on Water Resources." in *Mountains, Valley and Flood Plans: Managing Water Resources in a Time of Climate Change*. A. Dinar and A. Garrido. Routledge Publishers, 2008.
30. Adams, R.M. and D.E. Peck. "The Use of Farm Level Mathematical Programming in Climate Change Assessments." In *The Handbook of Climate Change Economics*, edited by R. Mendelsohn and A. Dinar (forthcoming).

Journal Articles

31. Adams, R.M. "Some Implications of Labor Adjustments in a Dual Economy Framework: Wyoming's Energy—Agriculture Interface." *Western Journal of Agricultural Economics*, 1(June 1977):196-200.
32. McKusick, R.B., R.M. Adams and J.H. Snyder. "The Value of Goods and Services—Implications for a Flexible National Water Policy." *Water Resources Bulletin*. June 1977.
33. Adams, R.M., G.A. King and W.E. Johnston. "Effects of Energy Cost Increases and Regional Allocation Policies on Agricultural Production." *American Journal of Agricultural Economics*, 59(August 1977):444-455.
34. Adams, R.M. and R.B. McKusick. "Regional Resource Use and Commodity Supply Response." *Agricultural Economics Research*. October 1977.
35. Adams, R.M. and D.J. Menkhaus. "Labor on the Farm: A Perspective and Some Emerging Issues." *Wyoming Issues*, Vol. 2, No. 1, Winter 1979.
36. Adams, R.M., D.J. Menkhaus and B. Woolery. "Alternative Parameter Specification in E,V Analysis: Implications for Farm Level Decision-Making." *Western Journal of Agricultural Economics*, 5(July 1980):13-20.
37. Howitt, R.E., R.M. Adams and W.D. Watson. "A Reevaluation of Price Elasticities for Irrigation Water." *Water Resources Research*, 16(August 1980):623-628.

38. Adams, R.M. and D.J. Menkhaus. "The Effects of Mining on Agricultural Hired Labor in the Northern Great Plains." *American Journal of Agricultural Economics*, 62(November 1980):748-752.
39. Santana, G.A.M. and R.M. Adams. "Projected Cropland Requirements and Land Availability for Major U.S. Production Regions." *Western Journal of Agricultural Economics*, 6(July 1981):69-81.
40. Adams, R.M. Review of "Energy Development in the Western United States: Impact on Rural Areas," by S. Murdock and F.L. Leistritz. *American Journal of Agricultural Economics*, 63(November 1981):761.
41. Menkhaus, D.J. and R.M. Adams. "Forecasting Price Movements: An Application of Discriminant Analysis." *Western Journal of Agricultural Economics*, 6(December 1981):229-38.
42. Adams, R.M., T.D. Crocker and N. Thanavibulchai. "An Economic Assessment of Air Pollution Damages to Selected Annual Crops in Southern California." *Journal of Environmental Economics and Management*, 9(March 1982):42-58.
43. Heck, W., O.C. Taylor, R.M. Adams, G. Bingham, J. Miller, E. Preston and I. Weinstein. "Assessment of Crop Loss from Ozone." *Journal of the Air Pollution Control Association*, 32(March 1982):353-361.
44. Howitt, R.E. and R.M. Adams. "A Reevaluation of Price Elasticities for Irrigation Water: Reply." *Water Resources Research*, 18(August 1982):1305-1308.
45. Adams, R.M. and T.D. Crocker. "Dose-Response Information and Environmental Damage Assessments: An Economic Perspective." *Journal of the Air Pollution Control Association*, 32(October 1982):1062-1067.
46. Adams, R.M., P.J. Farris and A.D. Halvorson. "Sugar Beet N Fertilization and Economic Optima: Recoverable Sucrose Versus Root Yield." *Agronomy Journal*, 75(March-April 1983):173-176.
47. Adams, R.M., P.J. Farris and D.J. Menkhaus. "Response Functions and the Value of Soil Test Information: The Case of Sugar Beets." *North Central Journal of Agricultural Economics*, 5(July 1983).
48. Adams, R.M. "Issues in Assessing the Economic Benefits of Ambient Ozone Control: Some Examples from Agriculture." *Environment International*, 9(November 1983):534-548.
49. Heck, W.W., R.M. Adams, W. Cure, O.C. Taylor, L. Kress and R. Kohut. "A Reassessment of Crop Loss from Ozone." *Environmental Science and Technology*, 17(December 1983):672A581A.
50. Mjelde, J., R.M. Adams, B.L. Dixon and P. Garcia. "Using Farmers' Actions to Measure Crop Loss Due to Air Pollution." *Journal of the Air Pollution Control Association*, 34(April 1984):360-364.
51. Howitt, R.E., T.W. Gossard and R.M. Adams. "Effects of Alternative Ozone Concentrations and Response Data on Economic Assessments: The Case of California Crops." *Journal of the Air Pollution Control Association*, 34(November 1984):1122-1127.
52. Adams, R.M., T.D. Crocker and R.W. Katz. "Assessing the Adequacy of Natural Science Information: A Bayesian Approach." *Review of Economics and Statistics*, 66(November 1984):568-575.
53. Dixon, B.L., P. Garcia, R.M. Adams and J.W. Mjelde. "Combining Economic and Biological Data to Estimate the Impact of Pollution on Crop Production." *Western Journal of Agricultural Economics*, 9(December 1984):293-302.

54. Hamilton, S.A., B.A. McCarl and R.J. Adams. "The Effect of Aggregate Response Assumptions on Environmental Impact Analysis." *American Journal of Agricultural Economics*, 67(May 1985):407-413.
55. Atkinson, S.E., R.M. Adams and T.D. Crocker. "Optimal Measurement of Factors Affecting Crop Production: Maximum Likelihood Methods." *American Journal of Agricultural Economics*, 67(May 1985):414-418.
56. Adams, R.M. and B.A. McCarl. "Assessing the Benefits of Alternative Ozone Standards on Agriculture: The Role of Response Information." *Journal of Environmental Economics and Management*, 12(September 1985):264-276.
57. Adams, R.M., S.A. Hamilton and B.A. McCarl. "The Economic Effects of Ozone Pollution on U.S. Agriculture." *Journal of the Air Pollution Control Association*, 35(September 1985):938-943.
58. Garcia, P., B.L. Dixon, J. Mjelde and R.M. Adams. "Measuring the Benefits of Environmental Change Using a Duality Approach: The Case of Ozone and Illinois Cash Grain Farms." *Journal of Environmental Economics and Management*, 13(March 1986):69-80.
59. Adams, R.M., J.M. Callaway and B.A. McCarl. "Pollution, Agriculture and Social Welfare: The Case of Acid Deposition." *Canadian Journal of Agricultural Economics*, 34(March 1986):3-19.
60. Adams, R.M. "Agriculture, Forestry and Related Benefits of Air Pollution Control: A Review and Some Observations." *American Journal of Agricultural Economics*, 68(May 1986):464-472.
61. Adams, R.M., S.A. Hamilton and B.A. McCarl. "The Benefits of Air Pollution Control: The Case of Ozone and U.S. Agriculture." *American Journal of Agricultural Economics*, 68(November 1986):885-894.
62. Matulich, S.C. and R.M. Adams. "Towards More Effective Wildlife Policies: An Economic Perspective of Wildlife Management Research." *Wildlife Society Bulletin*, 15(June 1987):285-291.
63. Johnson, N. and R.M. Adams. "Benefits of Increased Streamflow: The Case of the John Day River Steelhead Fishery." *Water Resources Research*, 24(November 1988):1839-1846.
64. Adams, R.M., J.D. Glycer, B.A. McCarl and D.J. Dudek. "The Implications of Global Change for Western Agriculture." *Western Journal of Agricultural Economics*, 13(December 1988):348-356.
65. Connor, J.D., R.M. Adams and J.D. Glycer. "Some Further Evidence on the Derived Demand for Irrigation Electricity: A Dual Cost Function Approach." *Water Resources Research*, 25(July 1989):1461-1468.
66. Adams, R.M. and T.D. Crocker. "The Agricultural Economics of Environmental Change: Some Lesson from Air Pollution." *Journal of Environmental Management*, 28(July 1989):295-307.
67. Adams, R.M., W.M. Musser, O. Bergland, S.L. Johnson and L.M. Musser. "User Fees and Equity Issues in Public Hunting Expenditures: The Case of Ring-Necked Pheasant in Oregon." *Land Economics*, 65(November 1989):376-385.
68. Johnson, N. and R.M. Adams. "On the Marginal Value of a Fish: Some Evidence from a Steelhead Fishery." *Marine Resource Economics*, 6(1989):43-55.
69. Adams, R.M. "Global Climate Change and Agriculture: An Economic Perspective." *American Journal of Agricultural Economics* Vol. 71, No. 5(December, 1989): 1271-1279.

70. Adams, R.M. and R.D. Rowe. "The Economic Effects of Stratospheric Ozone Depletion on U.S. Agriculture: A Preliminary Assessment." *Journal of Environmental Management* 30(1990):321-335.
71. Adams, R.M., C. Rosenzweig, J. Ritchie, R. Peart, J.D. Glycer, B.A. McCarl, B. Curry and J. Jones. "Global Climate Change and U.S. Agriculture." *Nature* (May, 1990):219-224.
72. Johnson, S.L., R.M. Adams and G.M. Perry. "The On-Farm Costs of Reducing Groundwater Pollution." *American Journal of Agricultural Economics* (November 1991):1063-1073.
73. Taylor, M.L., R.M. Adams and S. Miller. "Farm-level Responses to Agricultural Effluent Control Strategies: The Case of the Willamette Valley." *Journal of Agricultural and Resource Economics* (July, 1992):173-185.
74. Urrutia, A.C. and R.M. Adams. "The Travel Cost Approach for Estimating Recreation Demand and Benefits: An Application to the Salmon Sport Fishing in Oregon." *Economia y Administracion* (December, 1992):47-61.
75. Berrens, R., O. Bergland and R.M. Adams. "Valuation Issues in an Urban Recreational Fishery: Spring Chinook Salmon in Portland, Oregon." *Journal of Leisure Research*, 25(1993);70-83
76. Adams, R.M., J.M. Callaway, C. Chang, D.M. Adams and B.A. McCarl. "Sequestering Carbon on Agricultural Land: Social Cost and Impacts on Timber Markets." *Contemporary Policy Issues* (January, 1993):76-87.
77. Adams, R.M., R. Berrens, A. Cerda, H. Li and P. Klingeman. "Developing a Bioeconomic Model for Riverine Management: Case of the John Day River, Oregon." *Rivers* (July, 1993):213-226.
78. Hong, S., R.M. Adams and H.A. Love. "An Economic Analysis of Household Recycling of Solid Wastes: The Case of Portland, Oregon." *Journal of Environmental Economics and Management* (September, 1993)136-146.
79. E.N. Castle, R. Berrens and R.M. Adams. "Natural Resource Damage Assessment: Speculations About a Missing Perspective." *Land Economics* (August, 1994):378-385.
80. Adams, R., B.A. McCarl, A. Solow, K. Bryant, D. Legler and J. O'Brien. "Value of Improved Long Range Weather Information." *Contemporary Economic Policy* (July, 1995): 10-19.
81. Adams, R.M., R. Fleming, B.A. McCarl and C. Rosenzweig. "A Reassessment of the Economic Effects of Global Climate Change on U.S. Agriculture." *Climatic Change* (May, 1995).
82. Fleming, R., R.M. Adams and C.S. Kim. "Regulating Groundwater Pollution: Effects of Geo-Physical Response Assumptions on Economic Efficiency." *Water Resources Research* (April, 1995):1069-1076.
83. Fried, B., R.M. Adams, B. Berrens and O. Bergland. "Willingness to Pay for a Change in Elk Hunting Quality." *Wildlife Society Bulletin* (1995)23:680-686.
84. Connor, J.D., G.M. Perry and R.M. Adams. "Cost Effective Abatement of Multiple Production Externalities." *Water Resources Research* (August, 1995):1789-1796.
85. Lin, P-C., R.M. Adams and R.B. Berrens. "Welfare Effects of Fishery Policies: Native American Treaty Rights and Recreational Salmon Fishing." *Journal of Agricultural and Resource Economics* (December, 1996): 243-276.
86. Kim, C.S., C.L. Sandretto, R.M. Adams and R.A. Fleming. "An Alternative Specification for Modeling Groundwater Dynamics." *Natural Resource Modeling* (1997) Vol 10(3).

87. Fleming, R.A. and R.M. Adams. "The Importance of Site Specific Information in the Design of Policies to Control Pollution." *Journal of Environmental Economics and Management* (July, 1997) 33: 347-358.
88. Solow, A., R.M. Adams, D. Legler, B. McCarl, K. Bryant. "The Value of ENSO Forecasts: Case of U. S. Agriculture." *Climatic Change* (1998) 39: 47-60.
89. Adams, R.M., B. Hurd, S. Lenhart and N. Leary. "The Effects of Global Warming on World Agriculture: An Interpretative Review." *Journal of Climate Research* (1998)11:19-30.
90. Fleming, R.A., R.M. Adams and D.E. Ervin. "The Role of Soil Test Information in the Design of Tax Policies to Control Agricultural Pollution." *Journal of Agricultural and Resource Economics* (1998) 23: 20-38.
91. Costello, C.J., R.M. Adams and S. Polasky. "The Value of El Niño Forecasts in the Management of Salmon: A Stochastic Dynamic Approach." *American Journal of Agricultural Economics* (1998) 80:765-777.
92. Adams, R.M. and S.H. Cho. "Agriculture and Endangered Species Protection: An Analysis of Tradeoffs in the Klamath Basin, Oregon." *Water Resources Research* (1998) 34:2741-49.
93. Berrens, R.P. and R.M. Adams. "Applying Contingent Valuation in the Design of Fee Hunting Programs." *Human Dimensions of Wildlife* (1998) 3:11-25.
94. Adams, R.M. "On the Search for the Correct Economic Assessment Method." *Climatic Change* (1999) 41:362-370.
95. Adams, R.M. and B.H. Hurd. "Climate Change and Agriculture: Some Regional Implications." *Choices* (1999) First Quarter.
96. Hong, S.H. and R.M. Adams. "Household Responses to Price Incentives for Recycling: Some Further Evidence." *Land Economics* (1999) 75:505-514.
97. Mahan, B., S. Polasky and R.M. Adams. "Valuing Urban Wetlands: A Property Price Approach." *Land Economics* (2000) 76:100-113.
98. Adams, R.M., C. Chen, B.A. McCarl and R.F. Weiher. "The Economic Consequences of ENSO Events on Agriculture." *Journal of Climate Research* (1999) 13:165-172.
99. Wu, J., R.M. Adams and W. Boggess. "Threshold Effects and Optimal Targeting of Conservation Efforts: Steelhead Trout Habitat Enhancement in Oregon." *American Journal of Agricultural Economics* (2000) 82:400-413.
100. Stevens, J.B., R.M. Adams, et al. "Benefits, Costs and Local Impacts of Market-Based Streamflow Enhancements." *Rivers* (2000) 7:89-108.
101. Wu, J., R.M. Adams, B. Babcock and D. Zilberman. "Targeting Resource Conservation Expenditures." in *Choices*, Second Edition, 2000.
102. Wu, J. and R.M. Adams. "Production Risk, Acreage Decisions and Implications for Revenue Insurance Programs." *Canadian Journal of Agricultural Economics* (2001) 49:19-35.
103. McCarl, B.M., R.M. Adams and C. Chen. "Economic Implications of Potential ENSO Frequency and Strength Shifts." *Climatic Change* (2001) 49:1-12.

104. Wu, J. and R.M. Adams. "Micro vs. Macro Acreage Response Models: Does Site-Specific Information Matter?" *Journal of Agricultural and Resource Economics*, July 2002.
105. Burke, S.M., R.M. Adams, R.E. Howitt and W.E. Wallander. "The Potential for Water Markets in the Klamath Basin" *Contemporary Economics Policy* (in press).
106. Adams, R.M. and D. Peck. "Climate Change and Drought: Implications for the West" *Western Economic Forum* (2002)1:14-19.
107. Wu, J., K. Skelton, B. Boggess and R. Adams. "Pacific Salmon Restoration: Tradeoffs Between Economic Efficiency and Political Acceptance." *Contemporary Economic Policy* (2003) 21:78-89.
108. Adams, R.M., L.L. Houston, B.A. McCarl, M.L. Tiscareno and J. Matus. "The Benefits to Mexican Agriculture of an ENSO Early Warning System." *Journal of Agricultural and Forest Meteorology* (2003) 115:183-194.
109. Adams, R.M. and R.J. Horst. "Future Directions in Air Quality Research: Economic Issues." *Environment International* (2003) 49.
110. Adams, R.M., B.A. McCarl and L.O. Means. "The Role of Spatial Variability on Economic Effects of Climate Change." *Climatic Change* (September, 2003) 60:131-148.
111. Wu, J., R.M. Adams and A. Plantinga. "Amenities in an Urban Equilibrium Mode: Residential Development in Portland, Oregon." *Land Economics* (2004) 80:19-32.
112. Wu, J., R.M. Adams, C. Kling and K. Tanaka. "From Micro Level Decisions to Landscape Changes: An Assessment of Agricultural Conservation Policies." *American Journal of Agricultural Economics*. (2004) 86:26-41.
113. Burke, S.M., R.M. Adams and W.W. Wallander. "Water Banks and Environmental Water Demands: Case of the Klamath Project." *Water Resources Research*. (2004) 40:1029-1038.
114. Mearns, L.O., R.M. Adams, et al. "Uncertainty Due to Spatial Scale of Climate Scenarios in Integrated Assessments." *Integrated Assessment* (2004) 4:225-235.
115. Aldrich, G., R.M. Adams, J. Tanaka and J. Buckhouse. "The Economics of Juniper Control." *Rangeland Ecology and Management*. (2005) 58:541-552.
116. Watanabe, M., R.M. Adams, J. Wu, et al. "Toward Efficient Riparian Restoration: Integrating Economic, Physical and Biological Models." *Journal of Environmental Management* (2005) 75:93-104.
117. Watanabe, M., R.M. Adams and J. Wu. "The Economics of Environmental Management in a Spatially Heterogeneous River Basin." *American Journal of Agricultural Economics*. (2006) 88:617-631.
118. Rashford, B. And R.M. Adams. "Improving Ecosystem Management in the Prairie Pothole Region." *American Journal of Agricultural Economics*. (2007) 89:755-768.
119. Seedang, S., S. Fernald, R.M. Adams and D.H. Landers. "Economic Analyses of Water Temperature Reduction Practices in a Large River Flood Plain." *River Research and Applications*. (2008) 24:941-959.
120. Rashford, B., R.M. Adams and B. Dugger. "Application of a Bioeconomic Model Towards Improving Waterfowl Management." *Journal of Wildlife Management* (in press).

121. Peck, D. and R.M. Adams. "Farm-level impacts of prolonged droughts: is a multiyear event more than the sum of its parts?" *Australian Journal of Agricultural and Resource Economics*. (2010) 54:43-60.
122. Adams, R. and D. Peck. "Water Resources and Climate Change." *Choices* (in press).
123. Langpap, C., B. Huang and R.M. Adams. "The Value of Stream Temperature Forecasts in Fisheries Management" *Contemporary Economic Policy*. In press.
124. Huang, B. C. Langpap and R. M. Adams. "Using In-stream Water temperature Forecasts for Fisheries management" *Journal of the American Water Resources Association*. (in press)

Agricultural Experiment Station, USEPA and Other Refereed Monographs and Publications

125. Dean, G.W., H.O. Carter, E.A. Nickerson and R.M. Adams. "Structure and Projections of the Humboldt County Economy: Economic Growth Versus Environmental Quality." Giannini Foundation Research Report No. 318. July 1973.
126. Adams, R.M. and M. Tunku Yahya. "Some Measures of Price, Yield and Revenue Variability for Wyoming Crops and Cropping Systems." Research Journal 115, Wyoming Agricultural Experiment Station, September 1977.
127. Johnston, W.E., R.M. Adams and G.A. King. "Economic Impact of Fossil Energy Alternatives on California Irrigated Agriculture." California Water Resources Center Contribution No. 170. June 1978.
128. Adams, R.M. and D.E. Agee. "Energy Use Within Agriculture." Wyoming Agricultural Economics. June 1978.
129. Adams, R.M., W.E. Johnston, G.A. King. "Some Effects of Alternative Energy Policies on California Annual Crop Production." Giannini Foundation Research Report No. 326. University of California, September 1978.
130. Conklin, N.C., R.M. Adams and C.E. Olson. "Labor Market Adjustments and Wyoming Agriculture: Some Effects on a Representative Ranch." Wyoming Agricultural Experiment Station Research Journal 134. February 1979.
131. Adams, R.M., N. Thanavibulchai and T.D. Crocker. "A Preliminary Assessment of Air Pollution Damages for Selected Crops Within Southern California." In: *Methods Development for Assessing Air Pollution Control Benefits*. U.S. Environmental Protection Agency. EPA-600/5-79-001c. February 1979.
132. Woolery, B.A. and R.M. Adams. "The Tradeoff Between Return and Risk for Selected Big Horn Basin Crop and Cattle Feeding Systems." Wyoming Agricultural Experiment Station Research Journal No. 149. February 1980.
133. Santana, C.A.M. and R.M. Adams. "Estimated Cropland Requirements for 1985 Under Demand and Yield Uncertainty." Wyoming Agricultural Experiment Station Research Journal No. 157. January 1981.
134. Adams, R.M., D.J. Menkhaus and K.A. Keith. "An Investigation of Alternative Risk Supply Response Models for Selected U.S. Crops." Wyoming Agricultural Experiment Station Research Journal No. 161. January 1981.

135. Heck, W.W., O.C. Taylor, R.M. Adams, G. Bingham, J.E. Miller and L.H. Weinstein. "National Crop Loss Assessment Network (NCLAN) 1980 Annual Report." Report to USEPA, Corvallis Environment Research Laboratory. EPA/600/3-82/001. June 1981.
136. Adams, R.M. and B.A. Woolery. "Cattle Feeding and Cash Crops: A Comparison of Returns and Risks." Wyoming Agricultural Experiment Station Bulletin B-759. September 1981.
137. Heck, W.W., O.C. Taylor, R.M. Adams, G. Bingham, J.E. Miller and L.H. Weinstein. "National Crop Loss Assessment Network (NCLAN) 1981 Annual Report." Report to USEPA, Corvallis Environment Research Laboratory. EPA/600/3-83-049. July 1982.
138. Adams, R.M. and T.C. Crocker. "The Value of Air Pollution Damages to Agricultural Activities in Southern California," Volume 6, Methods Development for Environmental Control Benefits Assessment. U.S. Environmental Protection Agency. EPA-230/7-83-011. 1983.
139. Crocker, T.D., J.T. Tschirhart, R.M. Adams and B. Forester. "Methods Development for Assessing Acid Deposition Control Benefits, Volume 7, Methods Development for Environmental Control Benefits Assessment. U.S. Environmental Protection Agency. EPA-230/7-83-011. 1983.
140. Farris, P.J. and R.M. Adams. "Fertilization of Sugar Beets: An Economic Analysis." Wyoming Agricultural Experiment Station Research Journal No. 185. February 1983.
141. Heck, W.W., O.C. Taylor, R.M. Adams, J.E. Miller and L. Weinstein. "National Crop Loss Assessment Network (NCLAN) 1982 Annual Report." Report to USEPA, Corvallis Environmental Research Laboratory. June 1983.
142. Dixon, B.L., P. Garcia, J. Mjelde and R.M. Adams. "Estimation of the Costs of Ambient Ozone on Illinois Cash Grain Farms: An Application of Duality." Illinois Agricultural Economics Staff Paper, No. 83E-276. January 1984.
143. Adams, R.M. M.V. Ledebor and B.A. McCarl. "Air Pollution and Agriculture: An Interpretive Review of the Literature." Oregon Agricultural Experiment Station Special Report 702, 1984.
144. Adams, R.M. "Economic Assessments of Ozone Effects." Chapter 7.5 in *Air Quality Criteria for Ozone and Other Photochemical Oxidants*. USEPA, Environmental Criteria and Assessment Office. EPA-600/8-84-020A. June 1984.
145. Adams, R.M. "Valuing Ecosystems: Economic Damage Due to Ozone.: Chapter 18.8 in *Air Quality Criteria for Ozone and Other Photochemical Oxidants*. USEPA, Environmental Criteria and Assessment Office. EPA-600/8-84-020A. June 1984.
146. Heck, W.W., O.C. Taylor, R.M. Adams, J.E. Miller and L. Weinstein. "National Crop Loss Assessment Network (NCLAN) 1983 Annual Report." Report to USEPA, Corvallis, Environmental Research Laboratory. EPA/600/3-85/061. July 1984.
147. Adams, R.M., S.A. Hamilton and B.A. McCarl. "The Economic Effects of Ozone on Agriculture." USEPA, Office of Research and Development. Research Monograph. EPA/600-3-84-90. September 1984.
148. Howitt, R.E., R.M. Adams and T.E. Gossard. "The Economic Effects of Air Pollution on California Agriculture." *California Agriculture*, 39(March-April 1985):22-24.
149. Heck, W.W., O.C. Taylor, R.M. Adams, L. Kress, R. Kohut and P. Temple. "National Crop Loss Assessment Network (NCLAN) Annual Report." Report to USEPA, Corvallis. EPA/600/3-86/041. July 1986.

150. Adams, R.M. "Effects of Ozone and Other Photochemical Oxidants on Vegetation." Chapter 1.5 in *Air Quality Criterion for Ozone and Other Photochemical Oxidants*. USEPA Environmental Criteria and Assessment Office. EPA 600/8-84 020aF. July 1986.
151. Adams, R.M., J.D. Glycer and S.L. Johnson. "A Final Assessment of the Economic Effects of Ozone on U.S. Agriculture." February 1988. Final project report to USEPA, Corvallis.
152. Adams, R.M., J.D. Glycer and B.A. McCarl. "The Economic Effects of Climate Change on U.S. Agriculture: A Preliminary Assessment." In *The Potential Effects of Global Climate Change on the United States*, J.B. Smith and D.A. Tirpak (eds.) USEPA, May 1989.
153. Adams, R.M. and J.D. Glycer. "An Assessment of the Agricultural Benefits of Tropospheric Ozone Reductions Using Office of Technology Assessment Assumptions." Report to Office of Technology Assessment, U.S. Congress. September 1988.
154. Adams, R.M. "Methods for Valuing Crop Effects Arising from Acid Deposition." Chapter 27 in *State of Science Report on Causes and Effects of Acid Deposition*. National Acid Deposition Assessment Program, Washington, DC. April 1991.
155. Adams, R.M. and N.K. Whittlesey. "The Economic Effects of Climate Change on Irrigated Agriculture." Chapter in *The Effects of Climate Change on the Pacific Northwest*. USEPA, Washington, DC (1993).
156. Adams, R.M., R. Fleming, B.A. McCarl and C.C. Chang. "A Reassessment of the Economic Effects of Global Climate Change on U.S. Agriculture." Final report to USEPA, Washington, DC. September 1993.
157. Adams, R., et al. "Some New Estimates of the Economic Effects of Climate Change on U.S. Agriculture." Report to Electric Power Research Institute, July 1994.
158. Vaux, Henry, Jr., R.M. Adams, H. Ayer, R. E. Howitt, R. Lacewell and N. Whittlesey. "Future of Irrigated Agriculture." Council on Agricultural Science and Technology Task Force Report No. 127, August 1995.
159. Adams, R.M. "Economic Effects of Ozone on Agriculture, Forestry and Ecosystems." Chapter 5.8 in *Air Quality Criterion for Ozone and Other Photochemical Oxidants*. USEPA Environmental Criteria and Assessment Office. EPA 600/P-93 004bF. July 1996.
160. Adams, R.M., B.H. Hurd and J.M. Reilly. "Effects of Climate Change on U.S. Agricultural Resources." Pew Center on Global Climate Change, Washington DC, 1998.
161. Hollinger, S.E., B.A. McCarl, L.O. Mearns, R.M. Adams and S. Riha. "Impacts of Variability on Agriculture" in U.S. National Assessment Agricultural Sector Report. USGRP, Washington DC, January 2000.
162. Adams, R.M., M. Brown, C. Colgan, N. Flemming, H. Kite-Powell, B. McCarl, J. Mjelde, A. Solow, T. Teisburg and R. Weiher. "The Economics of ISOOS: Benefits and the Rationale for Public Funding." U.S. Department of Commerce. National Oceanic and Atmospheric Administration. May, 2000.
163. Hollinger, S.E., B.A. McCarl, L.O. Mearns, R.M. Adams, C.C. Chen, S.J. Riha and D.E. Schimmelpfenning. "Impacts of Variability on Agriculture." Chapter 4 in National Climate Change Assessment Group Report. 2000.
164. Adams, R.M., L.L. Houston, B.A. McCarl, N. Tiscareno, J. Matus and R. Weiher. "The Benefits and Costs of an ENSO Early Warning System in Mexican Agriculture." U.S. Department of Commerce, National Oceanic and Atmospheric Administration, August, 2001. 56 pp.

165. Adams, R.M., J. Wu and L.L. Houston. "The Effects of Climate Change on California Crops and Water Use." Report prepared for the California Energy Commission, November, 2001. 182 pp.
166. Lewis, W., R.M. Adams et al. "Scientific Evaluation of Biological Opinions on Endangered and Threatened Fishes in the Klamath River Basin." Interim Report, National Research Council. National Academy Press. March 2002.
167. Twiss, R., J. Mount and R. Adams. "The Role of Science in the Delta Visioning Process." Report prepared for the California Bay-Delta Authority, June 2006. 32 pp.
168. Adams, R.M., B. Huang and C. Langpap. "The Value of Short Term Stream Temperature Forecasts to Salmonid Management in the Pacific Northwest." Report to National Weather Service, Office of Hydrological Development. Washington D.C., September 2009 56 pp.

Published Proceedings and Abstracts

169. Menkhaus, D.J. and R.M. Adams. "An Analysis of the Agricultural Hired Labor Market for the Northern Great Plains with Emphasis on the Effects of Energy Development." In: *Modeling Local Impacts of Energy Development*. F. Leistritz and L. Bender, eds. USEPA, EPA-6009-80-036, Great Plains Agricultural Council Publication 96. August 1980.
170. Adams, R.M. and T.D. Crocker. "Some Issues in the Generation of Dose-Response Information: An Economic Perspective." In: *Proceedings, 74th Air Pollution Control Association Annual Meeting*, Philadelphia, Pennsylvania. 1981.
171. Santana, C.A.M. and R.M. Adams. "Assessment of Cropland Requirements and Availability." *Western Journal of Agricultural Economics*, 6(December 1981):311. (Abstract)
172. Adams, R.M. and D.J. Menkhaus. "Alternative Risk Supply Response Models for Corn and Soybeans." *Western Journal of Agricultural Economics*, 6(December 1981):309. (Abstract)
173. Menkhaus, D.J. and R.M. Adams. "The Effect of Feed Prices, Interest Rates and Fed Cattle Prices on Breakeven Feeder Cattle Prices: A Simulation Approach." *Western Journal of Agricultural Economics*, 6(December 1981):309. (Abstract)
174. Adams, R.M. "Economic Assessment of Air Pollution Damages to Agriculture: The NCLAN Approach." In: *Proceedings, 75th Annual Meeting of the Air Pollution Control Association*. 1982.
175. Mjelde, J.W., B.L. Dixon, P. Garcia and R.M. Adams. "Cash Grain Farmers and Air Pollution." *American Journal of Agricultural Economics*, 5(December 1984):898. (Abstract)
176. Menkhaus, D.J., G. Gutkowski and R.M. Adams. "The Demand for Feedlot Placements in the Great Plains." *Western Journal of Agricultural Economics*, 10(December 1985):423.
177. Adams, R.M. and J.D. Glycer. "The Adequacy of Data on Ozone Effects on Vegetation: An Economic Perspective." *Proceedings of Air Pollution Control Association Annual Meetings*, June 1989.
178. Ching-Cheng, C., B.A. McCarl and R.M. Adams. "A Mathematical Programming Model of the U.S. Agricultural Sector." *Proceedings of Western Agricultural Economics Association Annual Meetings*, Coeur d'Alene, Idaho. July 1989.
179. Fleming, R.A. and R.M. Adams. "Regulating Groundwater Pollution: Effects of Geophysical Response Assumptions on Economic Efficiency." *Journal of Agricultural and Resource Economics*, 18(December, 1993): 299.

180. Adams, R.M. and R. Berrens. "Converting Willingness to Pay Into Public Revenues: Evidence from a Pheasant Stocking Program." *Journal of Agricultural and Resource Economics*, 18(December, 1993):302.
181. Adams, R. "Valuing Climate as a Resource in the Agricultural Sector" in Proceedings of Institute on the Economics of Climate Resources, K. Miller, Ed., Boulder, Colorado, July, 1995.
182. Adams, R. "The Economic Value of Climate Predictions." Proceedings of International Conference on Climate Prediction, Columbia University, April, 2000.

Miscellaneous Reports and Publications

183. Adams, R.M. and R.B. McKusick. "San Joaquin Valley River Basin Study: Fish and Wildlife Resources—Problems and Needs Associated with Water Quality and Quantity." Economics Research Service, Type IV River Basin Study. March 1974.
184. Johnston, W.E., G.V. Ferry and R.M. Adams. "Economic Analysis of Proposed Eastside Service Area, Lost Hills Water District. Kern County, California." Unpublished report to the Lost Hills Water District. February 1975.
185. Johnston, W.E., G.V. Ferry, A.A. Marsh and R.M. Adams. "Service Area Repayment Capacity, Lost Hills Water District, Kern County, California." Unpublished report to the Lost Hills Water District. July 1975.
186. Adams, R.M. "A Quadratic Programming Approach to the Production of California Field and vegetable Crops Emphasizing Land, Water and Energy Use." Unpublished Ph.D. Dissertation, University of California, Davis. July 1975.
187. Adams, R.M. and G.W. Kearl. "Public Land Policies and Agriculture." In: *Impact of Governmental Regulations on Agriculture*. Old West Regional Commission Task Force Report, North Dakota Agricultural Experiment Station, Fargo. March 1978.
188. King, G.A., R.M. Adams and W.E. Johnston. "Selected California Vegetables and Field Crop Price-Forecasting Equations." Department of Agricultural Economics, University of California, Davis. Giannini Foundation Research Report No. 326. July 1978.
189. Adams, R.M. "The Competitive Position of Pacific Northwest Agriculture: A Preliminary Assessment of the Role of Land Related Factors." Unpublished report to the Northwest Agricultural Development Project, Vancouver, Washington. September 1979.
190. Crocker, R.D., J.T. Tschirhart, R.M. Adams and B. Forster. "Methods Development for Assessing Acid Precipitation Control Benefits." Draft report to USEPA, Office of Research and Development. USEPA Grant R806972010. October 1980.
191. Adams, R.M., T.D. Crocker and N. Thanavibulchai. "Yield Variability, Air Pollution and Producer Risk: An Exploratory Study of Selected Agricultural Crops in Southern California." Draft report to USEPA, Office of Research and Development. October 1982.
192. Rowe, R.D., L.G. Chestnut, C. Miller, R.M. Adams, M. Threshow, H.O. Mason, R.E. Howitt and J. Trijonis. "Economic Assessment of the Effects of Air Pollution in the San Joaquin Valley." Final Report to Research Division, California Air Resources Board. Energy and Resource Consultants, Inc., Boulder, Colorado. March 1984.

193. Adams, R.M., S.A. Hamilton and B.A. McCarl. "The Economic Effects of Ozone on Agriculture." Final Project Report to U.S. Environmental Protection Agency, Corvallis Environmental Research Laboratory, May 1984.
194. Adams, R.M. and K. Sharma. "The Effects of Acid Deposition on Agriculture: A Review and Evaluation of the Literature." Project Report to U.S. Environmental Protection Agency, Acid Deposition Assessment Staff, June 1984.
195. Adams, R.M. and B.A. McCarl. "The Effects of Acid Deposition on Agriculture: Farm Level Economic Effects." Project Report to U.S. Environmental Protection Agency, Acid Deposition Assessment Staff, September 1984.
196. Adams, R.M. "Agricultural Effects." In: *The Economic Effects of Air Pollution in California*. R. Rowe and L. Chestnut, eds. Report to California Air Resources Board. November 1984.
197. Adams, R.M. and B.A. McCarl. "The Effects of Acid Deposition on Agriculture: Summary and Recommendations." Project Report to U.S. Environmental Protection Agency, Acid Deposition Assessment Staff. January 1985.
198. Adams, R.M. and B.A. McCarl. "Acid Deposition: Economic Effects on Agriculture." Report prepared for Battelle Pacific Northwest Laboratories. February 1985.
199. Johnson, S.L., W. Moore and R. Adams. "The Effects of Ozone on Crop Yield Variability: An Exploratory Analysis." Report to USEPA, Corvallis Environmental Research Laboratory. January 1986.
200. Rowe, R.D. and R.M. Adams. "Economic Impacts of Lower Crop Yields Due to Stratospheric Ozone Change." Report to U.S. Environmental Protection Agency. Prepared by Energy and Resource Consultants, Inc., Boulder, Colorado. September 1987.
201. Adams, R.M. "Is the Climate Changing and how will it Affect Agriculture." Pacific Northwest Agricultural Situation and Outlook Bulletin, *Northwest Farmer-Stockman*. January 1989.
202. Perry, G.M. and R.M. Adams. "Nitrate Pollution of Groundwater by Agriculture: What Can Be Done?" *Oregon Farmer-Stockman*. July 1989.
203. Chang, C., B.A. McCarl and R.M. Adams. "A Mathematical Programming Model of the U.S. Agricultural Sector." *Proceedings of Western Agricultural Economics Association Annual Meetings*, Coeur d'Alene, Idaho. July 1989.
204. Adams, R.M. "Changing Laws Governing Water Use" and two other sections in *Alternative Actions for Restoring and Maintaining Salmonid Populations on the Columbia River System*. L. Eisgruber, ed. PNW 407. 1992.
205. Kim, C.S., R.A. Fleming, R.M. Adams and M. English. "An Economic Analysis of Agricultural Practices Related to Water Quality: The Ontario Hydrologic Unit." Economic Research Service Technical Report. 1994.
206. Adams, R.M. and Hauke Kite-Powell. "The Benefits of Improved ENSO Forecasts: Empirical Evidence and Research Needs." Report prepared for Office of the Chief Scientist, NOAA, May, 1996.
207. Adams, R.M. and C.J. Costello. "The Value of Lengthening the ENSO Forecast Time-frame: Case of the Pacific Coho Salmon Fishery." Report to Office of the Chief Scientist, NOAA, July 17, 1996. 15 pp.

208. Adams, R.M., C.J. Costello, S. Polasky, D. Sampson and A. Solow. "The Value of Improved ENSO Forecasts: A Preliminary Assessment of Effects on Fisheries in the Pacific Northwest." Final project report to USDA NOAA, Grant NA S6GPO322, July, 1996, 107 pp.
209. Adams, R.M., C. Chen, B.A. McCarl and R.F. Weiher. "The Economic Consequences of ENSO Events: The 1997-98 El Niño and the 1998-99 La Niña." Faculty Paper 99-2, Department of Agricultural Economics, Texas A&M University, December, 1998.
210. Wu, J., R. Adams and K. Tanaka. "The Effects of Green Payments on Nutrient Runoff in the Midwest." Report to the Center for Agricultural Resources and Development (CARD), Iowa State University, February, 2002.
211. Peck D. and R.M. Adams. "Drought and Drought Forecasts—Economic Implications." Report to NOAA, Office of Strategic Planning, August, 2002.
212. Adams, R.M., L. Houston and R.F. Weiher. "The Value of Snow and Snow Information Services." Report to NOAA, Remote Sensing Center. 45 pages, July, 2004.
213. Adams, R.M., L.L. Houston et al. "The Value of Water Resource Information." NOAA Office of Hydrology, 31 pages, September 2005.
214. Supalla, R.J., D.L. Martin, D.L., R.M. Adams and R.F. Weiher. "Potential Economic Value of Soil Moisture Data for Irrigation Management in the Central Great Plains." NOAA Office of Hydrology, 17 pages, January 2006.
215. Adams, R.M., C. Langpap and B. Huang. "The Value of Stream temperature Forecasts in Salmonid Management in the Pacific Northwest". NOAA Office of Hydrologic Development, Washington, D.C. 59 pages. November, 2009.
216. Adams, R.M. and L.L. Houston. A review and Synthesis of Literature on the Economic Value of Fishery Investments; the case of Carneros Creek, Napa County, California" Report to the California Land Stewardship Institute, Napa, California. 73 pages. June, 2010.

217. Papers Presented at Professional Meetings

218. McKusick, R.B., R.M. Adams and J.H. Snyder. "The Value of Goods and Services—Implications for a Flexible National Water Policy." Paper presented at the Eleventh American Water Resources Conference. Baton Rouge, Louisiana. November 10-13, 1975.
219. Adams, R.M. and W.E. Johnston. "A Quadratic Regional Supply Response Model for California Vegetable and Field Crops Emphasizing Land, Water and Energy Use." paper presented at the annual Operations Research Society of America/Institute of Management Science National Meeting. Las Vegas, Nevada. November 17-19, 1975.
220. Adams, R.M., W.E. Johnston and G.A. King. "A Policy Model for Regional Supply Under Yield Uncertainty in Annual Crop Production." Paper presented at the annual Southern Agricultural Economics Association meetings in Mobile, Alabama. February 2-4, 1976.
221. Adams, R.M. "Some Implications of Resource Adjustments in a Dual Economy Framework: Wyoming's Energy—Agriculture Interface." Paper presented at Western Agricultural Economics Association annual meeting. Fort Collins, Colorado. July 17-19, 1976.

222. Adams, R.M. "Some Methodological Considerations Concerning the Assessment of Air Pollution Agricultural Damages." Paper presented at the California Air Resources Board Symposium on Air Pollution Vegetative Damages. Sacramento, California. July 19, 1977.
223. Adams, R.M. "Distributional Effects of Alternative Energy Policies: An Example from Agriculture." Paper presented at joint meetings of American Agricultural Economics Association and the Western Agricultural Economics Association. San Diego, California. July 31-August 3, 1977.
224. Adams, R.M., T. Crocker, A. Kneese and W. Schultze. "Epidemiology and Microeconomics." Paper presented at joint meetings of American Agricultural Economics Association and the Western Agricultural Economics Association. San Diego, California. July 31-August 3, 1977.
225. Conklin, N.C., R.M. Adams and D.J. Menkhaus. "Agricultural Employment and Intersectoral Linkages: An Analysis of Energy Impacts." Paper presented at annual meeting of Western Agricultural Economics Association. Bozeman, Montana. July 23-25, 1978.
226. Adams, R.M. "A Methodological Framework for the Economic Assessment of Acid Precipitation Damages on Agriculture and Other Terrestrial Systems." Paper presented before the National Academy of Sciences, Committee on Issues in the Prevention of Significant Deterioration. Washington, DC. September 10, 1979.
227. Menkhaus, D.J. and R.M. Adams. "An Analysis of the Agricultural Hired Labor Market for the United States and Northern Great Plains." Paper presented at the Great Plains Council—Energy Development winter meetings. Denver, Colorado. March 18-19, 1980.
228. Adams, R.M. "Conceptual Issues in Animal Health Economics." Invited seminar presented before Department of Epidemiology and Preventive Medicine, School of Veterinary Medicine. University of California, Davis. March 13, 1980.
229. Menkhaus, D.J. and R.M. Adams. "Forecasting Price Movements: An Application of Discriminant Analysis." Paper presented at annual meeting of Western Agricultural Economics Association. Las Cruces, New Mexico. July 20-22, 1980.
230. Adams, R.M. and T.D. Crocker. "Economic Analysis of Air Pollution Induced Crop Losses." Invited paper at E.C. Stackman International Symposium on Assessment of Losses in Agriculture and Forestry, University of Minnesota, Minneapolis. August 20-23, 1980.
231. Adams, R.M., T.D. Crocker and J.S. Tschirhart. "Valuing Ecosystem Functions: The Effect of Acidification." Invited paper at Allied Social Sciences Association annual meeting. Denver, Colorado. September 5-7, 1980.
232. Adams, R.M. "Some Thoughts on the Design and Use of Dose Response Functions in Economics." Invited discussion paper at Thirteenth Annual Air Pollution Workshop, Boyce-Thompson Institute, Cornell University. Ithaca, New York. May 5-7, 1981.
233. Adams, R.M. and T.D. Crocker. "Some Issues in the Generation of Dose Response Information: An Economic Perspective." Invited paper at Air Pollution Control Association annual meetings. Philadelphia, Pennsylvania. June 21-26, 1981.
234. Santana, C.A.M. and R.M. Adams. "Assessment of Cropland Requirements and Availability." Selected paper presented at annual meeting of Western Agricultural Economics Association. Lincoln, Nebraska. July 19-21, 1981.
235. Adams, R.M. and D.J. Menkhaus. "Alternative Risk Supply Response Models for Corn and Soybeans." Selected paper presented at annual meeting of Western Agricultural Economics Association. Lincoln, Nebraska. July 19-21, 1981.

236. Menkhaus, D.J. and R.M. Adams. "The Effect of Feed Prices, Interest Rates and Fed Cattle Prices on Breakeven Feeder Cattle Prices: A Simulation Approach." Selected paper presented at annual meeting of Western Agricultural Economics Association. Lincoln, Nebraska. July 19-21, 1981.
237. Adams, R.M. and T.D. Crocker. "Economically Relevant Response Estimation and the Value of Information: The Case of Acid Rain." Invited paper presented before the Division of Environmental Chemistry, American Chemical Society. Las Vegas, Nevada. April 1, 1982.
238. Adams, R.M. "Economic Assessment of Ozone Damages: The NCLAN Approach." Paper presented at the 75th Annual Air Pollution Control Association annual meetings. New Orleans, Louisiana. June 21-25, 1982.
239. Crocker, T.D., R.M. Adams and R. Katz. "Dose-Response Information and Agricultural Assessments: A Bayesian Framework." International Symposium on the Effects of SO₂ on Plant Productivity. Stanford University. November 29, 1982.
240. Adams, R.M. "Assessing the Economic Costs of Air Pollution on Agriculture." California Air Resources Board Symposium on Effects of Air Pollution on Agriculture. Fresno, California. November 18, 1982.
241. Gum, R., R.M. Adams and S. Garifo. "Recreation Values as a Function of Methodology." Western Regional Committee on Recreation (W-113) annual meeting. San Diego, California. February 17, 1983.
242. Adams, R.M. "Policy and Technical Issues of Air Pollution Control: An Economic Perspective." Invited seminar, Department of Atmospheric Sciences, Oregon State University. April 21, 1983.
243. Adams, R.M. "Methods for Measuring the Economic Consequences of UV-B Radiation on Terrestrial Ecosystems." Paper presented at NATO Advanced Research Workshop on the Impact of Solar Ultraviolet Radiation upon Ecosystems. Bad Windsheim, West Germany. September 29, 1983.
244. Adams, R.M. "The Role of Biological Data in Economic Assessments of Pollution Control Policies." Paper presented at California Air Resources Board Research Workshop. Davis, California. January 11, 1984.
245. Adams, R.M. "Benefit-Cost Assessments: The Case of Ozone and Agriculture." Invited paper, Sixteenth Annual Air Pollution Effects Workshop. Banff, Alberta. April 30-May 2, 1984.
246. Adams, R.M. "The Economic Effects of Environmental Stress on U.S. Agriculture." Invited seminar, National Center for Atmospheric Research. Boulder, Colorado. June 6, 1984.
247. Mjelde, J.W., B.L. Dixon, P. Garcia and R.M. Adams. "Cash Grain Farmers' Profits and Air Pollution." Selected paper, American Agricultural Economics Association annual meeting. Cornell University, Ithaca, New York. August 5-8, 1984.
248. Adams, R.M. "Distributional Issues in Resource Planning." Report for ERC/EPRI. Water Resources Department Economics Workshop. November 1984.
249. McCarl, B.A. and R.M. Adams. "Improving the Performance of Programming Based Environmental Analysis of Agriculture." Invited paper AAEA/AEA winter meeting. Dallas, Texas. December 1984.
250. Atkinson, S.E., R.M. Adams and T.D. Crocker. "Optimal Measurement of Factors Affecting Crop Production: Maximum Likelihood Methods." Invited paper AAEA/AEA winter meeting. Dallas, Texas. December 1984.

251. Adams, R.M. "The Economics of Pollution Control." Invited seminar, Department of Agricultural Economics, University of Arizona. Tucson, Arizona. March 29, 1985.
252. Menkhaus, D.J., G. Gutkowski and R.M. Adams. "The Demand for Feedlot Placements in the Great Plains." Selected paper, Western Agricultural Economics Association annual meetings, Saskatoon, Saskatchewan. July 1985.
253. Adams, R.M. "The Benefits of Air Pollution and Acid Deposition Control." Invited paper, Allied Social Sciences Association annual meetings, New York, New York. December 28-29, 1985.
254. Adams, R.M. "Agriculture, Forestry and Related Benefits of Air Pollution Control: A Review and Some Observations." American Agricultural Economics Association winter meetings, New York, New York, December 1985.
255. Adams, R.M. "The Economic Implications of Air Pollution for California." Invited paper, Symposium on the Causes and Effects of Air Pollution and Acid Rain, California State University, Fresno, California. August 18-19, 1986.
256. Adams, R.M. "The Role and Value of Natural Science Information in Economic Analysis." Invited seminar, U.S. Environmental Protection Agency, Corvallis. November 24, 1986.
257. Adams, R.M. "Benefits and Costs of Water Yield Enhancements: An Example from the John Day River." Invited seminar, Water Resources Research Institute, Oregon State University. December 4, 1986.
258. Adams, R.M. "The Benefits of Oregon's Pheasant Stocking Program to Willamette Valley Hunters." Invited paper, Northwest Regional meeting, Oregon Department of Fish and Wildlife, Salem, Oregon. January 13, 1987.
259. Adams, R.M. and T.C. Crocker. "The Impact of Pollution from Other Sources on Agriculture: An Assessment and Review of the Economics." Invited paper, OECD workshop on the Integration of Environmental Policies with Agricultural Policies, Paris, France. May 11-13, 1987.
260. Adams, R.M., J.D. Glycer and B.A. McCarl. "The NCLAN Economic Assessment: Approach, Findings and Implications." Invited paper, International Conference on Assessment of Crop Loss from Air Pollutants, Raleigh, North Carolina. October 25-29, 1987.
261. Adams, R.M. "Economic Effects of Air Pollution on Agriculture: The Stratospheric-Tropospheric Ozone Interaction." Invited paper, U.S.-Dutch International Symposium on Ozone. Nijmegen, The Netherlands. May 8-13, 1988.
262. Tingey, D.T. and R.M. Adams. "Assessing the Impact of Tropospheric Ozone on Agriculture: Results of a 7-Year Study." Oregon State University Seminar Series on Problems and Paradigms for Environmental Change Issues. May 26, 1988.
263. Adams, R.M., B.A. McCarl and D.J. Dudek. "The Implications of Long-Term Climate Change for Irrigated Agriculture." Invited paper, Western Agricultural Economics Association annual meeting, Honolulu, Hawaii. July 10-13, 1988.
264. Johnson, S.L., R.M. Adams and G.M. Perry. "Optimal Irrigation and Fertilization Strategies for Managing Groundwater Pollution." Invited paper, American Geophysical Union winter meetings, San Francisco, California. December 5-9, 1988.
265. Adams, R.M. and J.D. Glycer. "The Effects of Global Climate Change in Western Agriculture." Invited paper, University of Wyoming Symposium on Global Climate Change: Impacts and Opportunities for Wyoming and the Region. Laramie. April 24-25, 1989.

266. Adams, R.M. and J.D. Glycer. "The Adequacy of Data on Ozone Effects on Vegetation: An Economic Perspective." Invited paper, annual meeting of Air Pollution Control Association, Anaheim, California. June 30, 1989.
267. Adams, R.M. "Global Climate Change: Marine Outreach Frontier." National Marine Extension Advisory Symposium, Portland, Oregon. July 20, 1989.
268. Johnson, S.L., R.M. Adams and G. Perry. "Strategies for Reducing Groundwater Pollution from Agriculture: The Case of Irrigated Production in Oregon." Contributed paper, American Agricultural Economics Association meetings, Baton Rouge, Louisiana. August 1, 1989.
269. Adams, R.M. "Global Climate Change: An Economic Perspective." Invited paper, American Agricultural Economics Association, Baton Rouge, Louisiana, July 30-August 2, 1989.
270. Adams, R.M. "The Role of GCM's in Studying Climate Change and Agricultural Markets," Invited paper, Seminar series on Global Climate Change, Cornell National Supercomputer Facility, Ithaca, NY. October 9, 1989.
271. Adams, R.M. "Potential Economic Effects of Climate Change." Invited Seminar, Department of Agricultural Economics, Cornell University, Ithaca, NY. October 9, 1989.
272. Adams, R.M. "An Economists' Viewpoint on Climate Change," Invited Seminar, U.S. Environmental Protection Agency. January 24, 1990.
273. Adams, R.M. "The Role of Agriculture in Climate Change," Invited Paper, Symposium on Managing Agriculture for Environmental Goals, Washington DC. May 16, 1990.
274. Adams, R.M. and B.A. McCarl. "Estimating the Effects and Contributions of Agriculture and Forestry." Invited Paper, Conference on Global Change: Economic Issues in Agriculture, Forestry and Natural Resources, Washington D.C. November 19-21, 1990.
275. Adams, R.M. "The Role of Agriculture in Trace Gas Emissions: Costs of Alternative Control Strategies," Invited Seminar, University of Nevada, Reno. December 3, 1990.
276. Adams, R.M. "The Effects of Climate Change on Regional Comparative Advantage." Invited Seminar, Los Alamos National Laboratory, Los Alamos, New Mexico. February 19, 1991.
277. Adams, R.M. "Economic Issues in Climate Change." Invited Seminar, Department of Economics, University of New Mexico. February 18, 1991.
278. Adams, D., R.M. Adams, J.M. Callaway and B.A. McCarl. "Sequestering Carbon in Agricultural Lands: A Preliminary Analyses of Social Cost and Impacts on the Timber Market." Invited Paper, Western Economics Association International Conference, Seattle, WA. June 30, 1991.
279. Adams, R.M. and T. Mount. "Climate Change and the Environment: Some Economic Issues." Invited Paper, International Agricultural Economics Association Meeting, Tokyo, Japan. August 23, 1991.
280. Adams, R.M. "Designing Recreation Valuation Studies: Some Pacific Northwest Experiences." Paper presented at workshop on Recreational Valuation, Mols Bergere, Denmark. June 6, 1992.
281. Adams, R.M. "On Valuing Fish and Wildlife Resources." Invited Seminar, Department of Economics, Royal Agricultural University, Copenhagen, Denmark. June 2, 1992.
282. Callaway, J.M., B.A. McCarl, R.M. Adams and C. Chang. "Carbon Sequestration and Agriculture." Western Economics Association Annual Meetings, June 1993.

283. Fleming, R.A. and R.M. Adams. "Regulating Groundwater Pollution: Effects of Geophysical Response Assumptions on Economic Efficiency." Western Agricultural Economics Association Annual Meetings, July 1993.
284. Kim, C.S., R.M. Adams and R. Fleming. "The Choice of Policy Instruments for Groundwater Quality Protection." Selected Paper, American Agricultural Economics Association Annual Meetings, San Diego, California, August 3-6, 1994.
285. Adams, R.M. "Natural Resource and Environmental Issues in the Pacific Northwest: Role of Economic Analysis." Invited Paper, International Seminar on Valuation of Natural and Environmental Resources. University of Concepción, Chile, August 25, 1994.
286. Adams, R.M. "Welfare Effects of Fishery Allocations: Native American Treaty Rights and Recreational Fishing." Invited Paper, International Seminar on Valuation of Natural and Environmental Resources. University of Concepción, Chile, August 25, 1994.
287. Adams, R.M., A. Solow, B. McCarl, D.M. Legler and R. Weiher. "The Value of El Niño Forecasts to Agriculture." Conference on the Economic Benefits of Meteorological Services, World Meteorological Organization. Geneva, Switzerland, September 19-23, 1994.
288. Fried, B., B. Berrens and R. Adams. "Willingness to Pay for a Change in Elk Hunting Quality: Evidence from the Starkey." Conference on Forestry and the Environment: Economic Perspectives. Banff, Canada, October 12-15, 1994.
289. Adams, R.M., B.A. McCarl, A. Solow and R. Weiher. "The Value of Improved Long-Range Forecasts for the U.S. Agricultural Sector." American Meteorological Society 75th Annual Meetings, Dallas, TX, January 19, 1995.
290. Adams, R.M. "Climate and Agriculture: A Review and Some Observations." Invited paper National Center for Atmospheric Research Symposium on the Economics of Climate, Boulder, CO, June 5-6, 1995.
291. Adams, R.M., P.C. Lin and R.P. Berrens. "Welfare Effects of Fishery Allocation Decisions: Native American Treaty Rights and Recreational Salmon Fishing." Invited paper, Third Annual Danish Workshop on Non-Market Valuation, Skjoldenæsholm, Denmark, June 8-9, 1995.
292. Costello, C.J., R.M. Adams, S. Polasky and D. Sampson. "Value of Improved ENSO Forecasts: A Stochastic Bioeconomic Model Applied to the Pacific Northwest Coho Fishery." Paper presented at American Fisheries Society Conference on Sustainable Fisheries. Vancouver, B.C., March 18-23, 1996.
293. Adams, R.M. "Benefits of Climate Information: Case of Agriculture, Fisheries, Energy and Water Management." NOAA-IOC Workshop on Socio-economic Aspects of GOS. Bethesda, MD, May 15, 1996.
294. Bergland, O., B. Fried and R. Adams. "Temporal Stability of Values from the Contingent Valuation Method." Paper presented at EAERE annual meetings, Lisbon, Portugal, June 18-21, 1996.
295. Adams, R.M. "The Value of ENSO Forecasts to Agriculture and Fisheries." Invited seminar, Texas A&M University, September 13, 1996.
296. Burke, S., R.M. Adams and A. Draper. "Estimating Economic and Environmental Benefits of Water Markets in a Spatially Diverse Setting." Invited paper, International Water and Resource Economics Consortium, Annapolis, MD, April 14-16, 1997.

297. Adams, R.M. "Climate Change, Agricultural Productivity and Food Supplies." Invited paper, USEPA/AMA Conference on Emerging Public Health Threat and the Role of Climate Change, Atlanta, GA, March 11-12, 1998.
298. Adams, R.M. "Climate Change and Agriculture: What Have We Learned From the Past Decade?" Paper presented AAEA Annual Meetings, Salt Lake City, UT, August 3-5, 1998.
299. Adams, R.M. "Climate Change and Agriculture: Impacts and Opportunities." National Forum on Agriculture, Ames, IA, March 1-2, 1999.
300. Burke, S., R.M. Adams, R.E. Howitt and W. Wallander. "Modeling the Economic and Hydrology of Agricultural Water Use with a Spatial Perspective." Pacific Northwest Conference on Environmental and Resource Economics, Eugene, OR, May 21-22, 1999.
301. Adams, R.M. "Effects of Climate Change on Agriculture: Facts and Fantasies." American Agricultural Economics Workshop on Climate, Nashville TN, August 7, 1999.
302. Adams, R.M., B.A. McCarl and C.C. Chen. "Economic Effects of Shifts in ENSO Event Frequency and Strength." International Workshop on Climate Prediction and Agriculture (CLIMAG), World Meteorological Organization, Geneva, Switzerland, September 27-29, 1999.
303. Adams, R.M. "The Economic Value of ENSO Forecasts: The U.S. Experience." International Seminar on Climate Change and Variability. University of Talca, Talca, Chile. January 26-27, 2000.
304. Adams, R.M. "The Value of Climate Forecasts." International Forum on Climate Prediction, Agriculture and Development. Columbia University, Palisades, New York. April 26-28, 2000.
305. Adams, R.M. "Impacts and Benefits of Climate Change." Caribbean Conference on Planning for Adaptation to Global Climate Change. San Fernando, Trinidad. May 15-16, 2000.
306. Adams, R.M. "Climate Change and the Political Economy of Carbon Sequestration." American Agricultural Economics Association Annual Meeting, Tampa, Florida. July 31-August 2, 2000.
307. Adams, R. "Future Directions in Economic Research on Air Pollution." International Conference on Future Directions in Air Quality Research, North Carolina State University, February 11-14, 2001.
308. Adams, R.M. and L.L. Houston. "Value of Improved ENSO Forecasts to Mexican Agriculture." Workshop on Assessing ENSO Effects on the Mexican Economy, UNAM, Mexico City, MX, June 3-5, 2001.
309. Adams, R.M. "A Review of Climate Change Effects on Agriculture." Workshop on Climate Change Impacts and Integrated Assessments, Snowmass, CO, August 1-4, 2001.
310. Adams, R.M. "Institutional Failure and the ESA: Case of the Klamath Basin. AAEA Annual Meetings, Long Beach, CA, August 2002.
311. Adams, R.M. "Effects of Climate Change on Crop Yields and Water Use." California Energy Commission Symposium on Climate Change, Sacramento, CA, February 20, 2003.
312. Weiher, R.F., R.M. Adams and T.E. Teisburg. "Valuing Weather Forecasts." Presentation at World Bank Workshop on Modernizing Russian Meteorological Services, Moscow, Russia. November, 2003.
313. Adams, R.M. "The Role of Economic Information on Design of Weather Forecast Products." Presentation at NOAA Workshop on the Use of Economics in Priority Setting, Washington D.C., April 22, 2004.

314. Adams, R.M. and D.E. Peck. "Strategies for Mitigating Water Supply Reductions: Case of Oregon's Irrigated Agriculture." USDA Conference on Risk Management in a Water-Short World, Washington D.C., May 22-24, 2004.
315. Adams, R.M. "Role of Weather Forecasts in Drought Management." NCAR Workshop on Weather and Water, Boulder, CO, September 2004.
316. Adams, R.M. "Climate Change and Water Resources: Implications for the Pacific Northwest." Presentation to Oregon Editors and Publishing Association, Portland, OR, April 8, 2005.
317. Adams, R.M. "The Value of Streamflow Forecasts in Managing Endangered Salmonids." Paper presented at NOAA Workshop on Valuation of Water Resources, Washington, D.C., August 2-3, 2005.
318. Adams, R.M. "Global Warming: Challenges and Opportunities." Invited Paper, Consejo Nacional Agropecuario (National Agricultural Business Council), Mexico City, Mexico. June 14-15, 2006.
319. Adams, R.M. and D.E. Peck. "Climate Change and Water Resources." Invited Paper, Rosenberg International Forum on Water Resources, Banff, Canada. September 7-10, 2006.
320. Adams, R.M. "Climate Change: Economics of Water Resources Effects." Keynote address Association of Caribbean and Latin American Environmental Economists, Talca, Chile, September 24-27, 2007.
321. Adams, R.M., B. Huang and C. Langpap. "The Value of Stream Temperature Forecasts: Case of the Pacific Northwest." Invited Seminar, National Weather Service, Office of Hydrological Development, Washington, D.C., September 19, 2009.
322. Adams, R.M., C. Langpap and B. Huang. The Value of Stream temperature Forecasts in the Management of Salmonids. Invited Seminar, NOAA Fisheries, Seattle, WA. May 27, 2010.

Professional Affiliations and Related Activities

Reviewer for over 20 agricultural economics, economics, and interdisciplinary journals.

Member, Master's Thesis Awards Committee, Western Agricultural Economics Association, 1976, 1980, 1988.

Member, Outstanding Published Research Award, Western Agricultural Economics Association, 1985.

Council Member, Western Agricultural Economics Association, 1975-1977.

Member of Editorial Council, Western Journal of Agricultural Economics, 1980-1982.

Reviewer for USEPA, Critical Assessment Document on Acid Deposition, 1982-1983.

Reviewer and Chairperson, various sessions and years, Western Agricultural Economics Association and American Agricultural Economics Association annual meetings.

Member, American Agricultural Economics Association.

Member, Western Agricultural Economics Association.

Member, Association of Environmental and Resource Economists.

Member, Western Economics Association

Chairperson, AAEA Awards Program, 1990.

Member, AAEA Outstanding Policy Contribution Committee, 1990-1992; 1999-2001.

Member, AAEA Fellows Selection Committee, 2003.

University Related Activities

Member, Graduate Advisory Committee, Division of Agricultural Economics, University of Wyoming, 1975-1981.

Member, University of Wyoming Committee on Committees, 1978.

Chairman, Master's Thesis Selection Committee, Division of Agricultural Economics, University of Wyoming, 1981.

Member, Dean's Search Committee, College of Agriculture, University of Wyoming.

Associate, Resource and Environmental Economics Laboratory, University of Wyoming.

Member, University of Wyoming Academic Standards committee, 1977-1980.

Member, Planning and Policy Committee, Department of Agricultural and Resource Economics, Oregon State University, 1984-1990.

Member, Graduate Advisory Committee, Department of Agricultural and Resource Economics, Oregon State University, 1984-1990.

Member, Water Resources Institute Board of Directors, 1985-1988.

Member, Oregon State University Faculty Senate, 1988-1991.

Member, College of Agricultural Student Awards Committee, 1988, 1990, 1991.

Vice Chair, Planning and Policy Committee, Oregon State University, 1988-1990.

Chair, Graduate Committee and Graduate Program Coordinator, 2000-2005.

Honors, Awards and Professional Recognition

Henry A. Jastro Fellowship for Graduate Study, University of California, 1970-1971.

Outstanding Doctoral Dissertation, Department of Agricultural Economics, University of California, Davis, 1975.

Gamma Sigma Delta.

Member, Agricultural Advisory Committee and chairman, Science Advisory Subcommittee, California Air Resources Board. 1982 to 1988.

Member, USEPA Air Ecology Peer Review Panel. Provide annual review of EPA air pollution effects programs and projects, consult with project leaders as needed. 1980-1982.

Invited participant, NATO Advanced Research Seminar on the Effects of UV-B Radiation on Terrestrial Ecosystems. Bad Windsheim, West Germany, September 1983.

Invited participant, USEPA/NATO Workshop on the Effects of Air Pollutants on Climate and Visibility: Research Review and Recommendations. Rougemont, North Carolina. January 29-February 1, 1984.

Member, USEPA Photo biology Peer Review Panel. Conduct annual reviews of EPA research program on UV-B radiation effects on terrestrial ecosystems. 1984-1986.

Member, Technical Subcommittee of Oregon Department of Environmental Quality Advisory Committee on Field Burning. 1985-1987.

U.S. Environmental Protection Agency. Award for Research Excellence, National Crop Loss Assessment Network. November 1987.

Member, Agricultural Advisory Committee, and Chairman, Science Advisory Subcommittee, California Air Resources Board. 1982 to 1987.

Invited Participant, U.S.-Dutch Symposium on Ozone Effects. Nijmegen, The Netherlands. May 8-13, 1988.

Associate Editor, *Water Resources Research*. 1988-1992.

Chairman, Policy Sciences Committee, Hydrology Section, American Geophysical Union, 1988-1990.

Thesis Advisor, outstanding M.S. Thesis, Western Agricultural Economics Association, 1988.

External Reviewer, College of Agriculture Research Program, University of Nevada, Reno, December 3-4, 1990.

Member, Council on Agricultural Science and Technology (CAST) Committee on Water Quality. 1991-92.

Advisory Panel, Systems at Risk from Climate Change. U.S. Congress, OAT, 1992.

Vice President, Western Agricultural Economics Association, 1990-1991.

Editor, *American Journal of Agricultural Economics*, 1992-1994. VOLS. 74-76.

Peer Review Panel, U.S. Department of Energy, Secretary of Energy Advisory Board, 1993.

Member, Council on Agricultural Science and Technology (CAST) Committee on the Future of Irrigated Agriculture, 1993-94.

Member, National Research Council, Committee on the Future Value of Groundwater, 1994-96.

Member, USEPA Socioeconomic Review Panel, 1995.

Editor's Citation for Excellence in Referring, *Water Resources Research*, 1995.

Editorial Council, *Journal of Environmental Economics and Management*, 1996-1998.

Outstanding Journal Article (Lin, Adams and Berrens), *Journal of Agricultural and Resource Economics*, 1996.

Member, Office of Global Programs, NOAA 1997 Review Panel.

Member, National Technical Advisory Committee, National Institute for Global Environmental Change, 1997-2000.

Co-Convener, U.S. National Forum on Climate Change, Washington DC, November 1997.

Vice-Chancellor's Award for Excellence, Texas A&M University, 1998.

Member, Steering Committee for Agricultural Assessment, USGRP, 1998-2000.

Member, NOAA Panel on the Value of the ISOOS Program, 2000.

Distinguished Fellow, American Association of Agricultural Economics, 2001.

Member, National Research Council Committee on the Status of Endangered Fishes of the Klamath Basin, 2001-2002.

Outstanding Journal Article (WU and Adams), *Canadian Journal of Agricultural Economics*, 2001.

Member, National Research Council Committee on Water Resources Management, Instream Flows and Salmon Survival in the Columbia River, 2003-2004.

Listed in *Who's Who in Economics*, Fourth Edition, M. Blang (ed.), Edward Elgar Publishers, 2003.

Member, Independent Science Board, California Bay-Delta Authority (CALFED).

Member (with J. Mount, U.C. Davis and R. Twiss, UC Berkeley), Panel on the "Role of Science in the Future of the California Delta." California Resource Agency. 2006.

Member, Technical Advisory Panel, CALFED Delta Risk Management Strategy. 2007-2008.

Outstanding Journal Article, *Australian Journal of Agricultural and Resource Economics* (Peck and Adams). 2010

Research Grants

Principal or Co-Principal Investigator for the following contracts:

\$145,600 — USDA, SEA. To direct research on the economic consequences of ozone related crop losses for major agricultural commodities and production regions. July 1981 to December 1983.

\$215,000 — USEPA, Office of Research and Development. Funds to conduct NCLAN regional and national economic assessments. July 1981 to June 1984.

\$45,000 — USEPA. Develop methods for assessing the long-term economic consequences of air pollution on perennial crops and forests. October 1982 to September 1984.

\$49,000 — USEPA, Acid Deposition Assessment Program. Assess preliminary economic costs of acid deposition on Midwest agriculture. March 1984 to May 1985.

\$237,000 — USEPA, Office of Research and Development. Assess economic effects of air pollution on crop yield variability; incorporate environmental risk measures in economic assessments of pollution control. March 1985 to December 1987.

\$2,650 — Oregon State University Agricultural Research Foundation. To assess benefits and costs of water allocation within the John Day River Basin of Oregon. July 1986-1988.

\$135,000 — U.S. Department of Interior, Geological Survey. Develop and implement an interdisciplinary assessment of the economic benefits and costs of Streamflow and habitat alteration for Steelhead trout enhancements on the John Day River, Oregon. September 1987 to August 1990.

\$47,800 — U.S. Department of Interior, Geological Survey. Determine the economic consequences of alternative irrigation practices restrictions to reduce groundwater pollution in Morrow/Ambitiously Counties, Oregon. September 1987 to August 1989.

\$44,000 — U.S. Environmental Protection Agency. Measure the economic effects of climate change on U.S. Agriculture. A component of an interdisciplinary study of the overall consequences of global climate change. October 1987 to September 1988.

\$107,000 — USDA, CARS. Assess the economic costs to irrigated agricultural producers of alternative groundwater quality restrictions in Oregon and Washington. August 1989 to July 1991.

\$105,000 — USDA, CARS. Continuation of above project. September 1991 to August, 1993.

\$41,700 — USEPA. Assess the effects of changes in water supply due to climate change on U.S. agriculture. October, 1991 - September, 1993.

\$85,000 — USDA, ERS. Assess the effects of management practices groundwater quality in the Treasure Valley region of eastern Oregon. June, 1992 - June, 1995.

\$78,000 — USDA, NOAA. Assess the value of improved ENSO forecasts to Pacific Northwest salmon fisheries. May 1, 1995 - April 30, 1996.

\$229,000 — USDA, CARS. Low Flow Augmentation Through Market Transfers of Deschutes River Water. August, 1995 - July, 1997.

\$148,500 — USDA, CARS. Assessment of Economic Tradeoffs Between Environmental Quality and Agricultural Production in the Klamath Basin. October 1, 1996 - September 30, 1998.

\$34,500 — USDA, USAR. Economic Analyses of Water-Based Recreation in the Upper Klamath Basin. June, 1999 - July, 2000.

\$76,000 — NOAA, UDC. Assess the Value of ENSO Forecasts to the Mexican Agricultural Sector. November, 1999 to December 2001.

\$15,600 — US Forest Service. Assess value of water across various uses in western U.S. August 2000 - February, 2001.

\$45,000 — US Forest Service. Assess future demands for water resources in the Pacific Northwest. 2001-2002.

\$39,000 — USDA, ERS. Farmers response to drought in federal irrigation projects. October 2002-September, 2004.

\$42,000 — Delta Waterfowl Foundation. Assess value of wetland mitigation in Manitoba. September 2003-December, 2005.

\$59,000 — NOAA, USDC. Implications of Climate Variability and Forecasts to Western Water Users, 2006.

\$60,000 — USEPA STAR Grant, Implications of Climate Change on Wetlands in the Prairie Pothole Region of North America. 2006-2008.

\$54,000 — NOAA, National Weather Service. An Assessment of the Value of Stream Temperature Forecasts. 2008.

Co-Investigator (at University of Wyoming)

\$545,000 — USEPA. To develop and apply methods for assessing the benefits of environmental improvements. 1977 to 1980.