

**CURRICULUM VITA**

**for**

**RONALD G. CUMMINGS**

**April, 2002**

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## CURRICULUM VITA

**Ronald G. Cummings**  
**April, 2002**

### I. PERSONAL INFORMATION

#### OFFICE ADDRESS:

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E-mail: rcummings@gsu.edu

#### EDUCATION:

Ph.D. Economics, University of Kansas, 1968  
M.A. Economics, University of Missouri, 1964  
B.S. Economics, University of Missouri, 1963

#### EMPLOYMENT HISTORY:

1993-present, Georgia State University. Professor and Holder of the  
*Noah Langdale Jr. Eminent Scholar Chair in Environmental Policy.*

2000 -present, Albany State University, Adjunct Professor.

1991-1995 University of South Carolina. Adjunct Professor.

1975-1993 University of New Mexico. Professor of Economics;  
Department Chairman (1987-1993).

1972-1975 University of Rhode Island. Department Chairman and Professor,  
Department of Resource Economics.

1969-1972 Resources for the Future, Inc., Research Economist and Program  
Director, (Mexico City), Natural Resources Program.

1967-1969 Montana State University. Assistant Professor of Economics and Agriculture  
Economics.

## **II. SELECTED HONORS AND AWARDS**

Beta Gama Sigma, Business School Honor Society, 1963.

New Mexico Eminent Scholar, Appointed April 19, 1989, New Mexico Eminent Scholars Program, New Mexico Commission on Higher Education, Santa Fe, NM.

Distinguished Service Award, Association of Environmental and Resource Economists, 1991.

Exceptional Service Award, Georgia State University, May, 2001.

## **III. MEMBERSHIP AND OFFICES IN PROFESSIONAL AND SCIENTIFIC SOCIETIES**

### **A. State Offices and Programs.**

Georgia Representative, Technical Review Panel for Coordination Mechanisms, for the Comprehensive Study of the Alabama-Coosa-Tallapoosa and Apalachicola-Chattahoochee- Flint River Basins Study, 1994.

Member, Program Development and Review Board, New Mexico Water Resources Research Institute, 1985-1993.

Member, Economic Development & Tourism Board, State of New Mexico, 1987-1990.

### **B. National Offices and Committees.**

Member, Comptroller General's Educators' Advisory Panel (GAO), 2001- present.

Member, Atlanta TDM Framework Research and Measurement Program Advisory Panel, Georgia Department of Transportation's Southern Coalition for Advanced Transportation, 2002-present.

Member, Clean Air Act Compliance Analysis Council, Science Advisory Board, U.S. Environmental Protection Agency, 1992- 1998.

Association of Environmental and Resource Economists:

President: 1983

President elect: 1982

Board of Directors: 1981; 1987-1996

Member, Executive Committee, Section of Hydrology, American Geophysical Union, 1983-1987.

Member, Topical Panels for the following:

National Academy of Sciences, panel on soils values, 1979

National Research Council, panel on climatic change, 1980-1981

C. State and Local Organizations

Member, Georgia Environmental Technology Consortium, 1993-present

Member, Advisory Committee, Georgia Greenhouse Gas Program, 1995-present

Member, Center for Urban Renewal and Ecology, joint GSU-GTU-UGA, 1997-present

D. Editorships and Editorial Councils.

Managing Editor, *Journal of Environmental Economics and Management*, published by the Academic Press. 1987-1996.

Editor, Policy Sciences, *Water Resources Research*, published by the American Geophysical Union, 1984-1987.

Member, Editorial Board/Advisory Council:

*Natural Resources Journal*, 1983-present.

*Environment and Development Economics*, 1994-present

*Land Economics*, 1975-1984.

*Southwestern Review of Management and Economics*, 1981-1987.

Coordinating Editor:

*Natural Resources Journal*, Vol. 21, No. 4.

*Natural Resources Journal*, Vol. 23, No. 3.

*Natural Resources Journal*, Vol. 34, No. 3.

#### IV. SELECTED CONSULTANT AND ADVISORY APPOINTMENTS

##### A. Regarding Hazardous Waste/materials Management.

1. State of New Mexico, Corporation Commission, Policy Plan for Hazardous Materials Transportation, 1980-1981.
2. Institute for Policy Research, University of Wyoming, Development of Plan for Hazardous Materials Transportation Study, 1982.
3. Governors (New Mexico) Task Force On The Waste Isolation Pilot Project--Socioeconomic Impacts Committee, 1983.
4. Governors (New Mexico) Task Force On The Waste Isolation Pilot Project--Transportation Committee, 1983.
5. State of Nevada, Formulation of Socioeconomic Study of Nuclear Waste Disposal Facility, 1983, 1985.
6. State of Mississippi, Socioeconomic Study of Nuclear Waste Site. Member Evaluation Team, 1985.
7. Impact Assessment, Inc. (for the State of Washington), Team Leader for study of impacts associated with the transportation of nuclear wastes, 1987-1988.
8. U.S. Department of Energy, Benefit-cost analyses for assessing new technologies for managing toxic wastes, 1989.

##### B. Regarding Water Resources Management.

1. Resources For The Future, Inc.; assessment of groundwater use in High Plains region; water management in Latin America, 1972-1978.
2. California Water Resources Center; methodologies for groundwater management, 1977.
3. Nordhaus, Haltom and Taylor (Albuquerque); Indian Water Rights; 1979-1983.
4. U.S. Department of Interior, Bureau of Indian Affairs; evaluation of Bureau of Reclamation policies, 1979-1980.
5. U.S. Attorney, Albuquerque Office, Bureau of Reclamation policies, 1979-1980.
6. Shoshone and Arapaho Tribes, Indian Water Rights, 1980-1981.

7. Department of Agriculture, Republic of Chile, water resources management for irrigation, 1980.
8. Interamerican Development Bank; assessment of water basin development plans associated with El Cajon Dam, Honduras, 1981.
9. International Institute for Applied Systems Analysis, Vienna, Austria; Program for Water Resources Research, 1981.
10. Office of Water Policy, U.S. Department of the Interior, 1982-1983.
11. Western Governors Policy Office (Denver), interstate compacts for groundwater use, 1984.
12. Ft. Berthold Affiliated Tribes, valuation of condemned lands, 1984-1985.
13. United Nations (UNDP), assessing the feasibility of using plastic mulch for irrigated agriculture in Mexico, 1984-1987.
14. Water Resources Research Institute, State of New Mexico, interstate water markets, 1984-1987.
15. World Resources Institute, water subsidies and pricing in Mexico, 1985.
16. World Resources Institute, long-run resources management issues in Mexico's irrigated agricultural sector, 1985-1987.
17. Flathead Indian Reservation, Montana, Indian water rights, 1986-1987.
18. World Bank, water planning in Northwest Mexico, 1990-1994.
19. Comision Nacional del Agua, Mexico City, the use of water markets for increasing the efficiency of water used in irrigation, 1993-1994.
20. Sheehan, Sheehan and Stelzner (for Intel Corporation), effects of water use on public welfare, 1994.
21. World Bank, design of water markets in Mexico, 1994-1996.

C. Regarding Energy Policy.

1. National Science Foundation - Resources For The Future; evaluation of the Federal Energy Administration's National Energy Outlook, 1977.
2. U.S. Department of Energy, Leasing Office, evaluation of offshore leasing policies, 1978.
3. Los Alamos Scientific Laboratory; analysis of hot, dry rock geothermal energy, 1979.

4. U.S. Department of Energy-California Institute of Technology, analysis of coal models used in government planning, 1979.
5. U.S. Geological Survey-University of Houston; evaluation of public policy for exploration and development of petroleum reserves, 1978-1979.

D. Regarding Environmental Quality.

1. U.S. Environmental Protection Agency, University of Wyoming; analysis of soiling effects from air particulates, 1978-1980.
2. National Academy of Sciences, panel on value and choices regarding soils, 1979.
3. U.S. Department of State; 4th US-USSR Symposium on Comprehensive Analysis of the Environment, 1979.
4. National Research Council; panel on climactic impacts from CO<sub>2</sub> buildup, 1980-1981.
5. National Science Foundation - Arthur D. Little, Inc., methods for assessing environmental benefits and costs, 1984.
6. American Petroleum Institute; state of the art assessment of non-use values and their measurement for environmental damages, 1991.
7. U.S. Environmental Protection Agency, Clean Air Act Compliance Committee, 1992-1998.

E. Regarding Forestry and Wildlife Resources Management.

1. Preston, Thorgrimson, Ellis, Homan Fletcher (Washington, DC), reviews of RARE II program of the Forest Service, 1978.
2. U.S. Senate, Committee on Energy and Natural Resources, review of Forest Service policies, 1979-1980.
3. Interamerican Development Bank; assessment of forestry management in Honduras, 1981.
4. Chippewa Tribe, Odonah, Wisconsin, valuation of resources on ceded lands, 1987-1988.

## V. PRINCIPAL INVESTIGATOR FOR SELECTED MAJOR RESEARCH PROJECTS

1. Investments for municipal infrastructure in boomtowns; the Los Alamos Scientific Laboratory, \$100,000 *per year* during the period 1975-1977.
2. Energy-agricultural trade-offs in water use; New Mexico Energy Institute, \$45,000, 1976-1977.
3. Economic analysis of electricity produced from hot, dry rock energy resources, Electric Power Research Institute, the U.S. Department of Energy, and The Los Alamos Scientific Laboratory, \$300,000, 1976-1979.
4. Groundwater use in the High Plains, Resources For The Future, \$25,000, 1977.
5. Analysis of the Resource Planning Act, Natural Resources Committee, U.S. Senate, \$40,000, 1978-1979.
6. Socioeconomic analysis of the proposed (Nuclear) waste isolation pilot project, U.S. Department of Energy, \$386,000, 1979-1981.
7. Benefits assessment for regulations on hazardous waste disposal, U.S. Environmental Protection Agency, \$200,000, 1982-1984.
8. Analysis of water management in the Colorado River Basin, National Science Foundation, \$115,000, 1979-1981.
9. Water-recreation benefits, U.S. Forest Service, \$60,000, 1981.
10. State appropriation of water, New Mexico Legislature, \$200,000, 1984-1986.
11. Water and land use planning, New Mexico State Land Commissioners Office, \$244,000, 1985-1987.
12. Risk costs associated with the transportation of nuclear wastes, funded by the New Mexico Waste Education and Research Consortium, \$150,000, 1990.
13. Risk costs associated with the transportation of nuclear wastes, funded by the New Mexico Waste Education and Research Consortium, \$150,000, 1991.
14. Risk costs associated with the transportation of nuclear wastes, funded by the New Mexico Waste Education and Research Consortium, \$75,000, 1992.
15. Explorations of the new "Options" theory of Investment, (with the Oakridge National Laboratory) funded by the U.S. Department of Energy: 1995-96, \$125,000.
16. Cultural differences in "willingness to pay" for policies designed to reduce global warming, (with the Oakridge National Laboratory) funded by the U.S. Department of Energy, \$125,000, 1995-96.

17. Alternative institutions for valuing environmental damages, funded by the National Science Foundation and the U.S. Environmental Protection Agency, \$115,000, 1995-96.
18. Assistance in policy analyses for natural and environmental resources management; Georgia Environmental Protection Division, 1996-2000, approx. \$250,000/year.
19. Privatization and toxic waste clean-up policies. Department of Energy - Oakridge National Laboratory, 1996-97, \$80,000.
20. Implementation/coordination of the EPD's Voluntary Ozone Reduction Program, 1997-2000, approx. \$335,102 per year.
21. Options for Scrap Tire Management: An Economic Analysis of Policy and Program Alternatives, Pollution Prevention Assistance Division and Environmental Protection Division, Georgia Department of Natural Resources, 1998, \$101,000; 1999-2000, \$165,200.
22. The American Heritage River Program: A Symposium, U.S. Army Environmental Policy Institute, October 23-25, 1998, \$60,000.
23. Flint River Regional Water Planning and Policy Center, 2000-2001, \$750,000.
24. Water Policy Planning In Coastal Georgia, U.S. Department of Agriculture, 2001-2002, \$345,000; 2002-2003, \$750,000.
25. Water Policy in Southwest Georgia, Georgia Research Alliance, 2000-2001, \$275,000.
26. Flint River Policy Center, 2001 Georgia Legislature, via the Soil and Water Commission, 2001-2002, \$800,000. Two positions and \$200,000 added to Regents Budget earmarked for the AYSPS Environment Program.
27. E-Commerce, Georgia Research Alliance, 2001-2002, \$85,000.

## VI. BOOKS, MONOGRAPHS AND MAJOR RESEARCH REPORTS

### A. Books and Monographs.

1. *Water Resource Management in Northern Mexico*, Baltimore, Johns Hopkins Press, July, 1972.
2. *Interbasin Transfers of Water: A Case Study in Mexico*, Baltimore, Johns Hopkins Press, 1974.
3. *Selected Water Management Issues in Latin American Agriculture*, (Co-editor with P. Crosson and K. Frederick), Baltimore, Johns Hopkins Press, 1978.
4. *Interstate Allocation and Management of Non-tributary Groundwater*, (with K.J. Burke and J.C. Mays), Western Governors Association, Denver, May, 1984.
5. *Valuing Environmental Goods: An Assessment of the Contingent Valuation Method*, (with D. Brookshire and W. Schulze), Rowman and Allanheld, Totowa, NJ, 1986.
6. *Improving Irrigation Management in Mexican Agriculture*, (with V. Brajer, et. al), World Resources Institute, Washington, DC, December, 1989.
7. "New Evaluation Procedures for a New Generation of Water-Related Projects," (with Ariel Dinar and Douglas Olson), *World Bank Technical Paper No. 349*, Washington D.C., 1996.

### B. Major Research Reports.

1. *A Time Series Profile of Urban Infrastructure Stocks in Selected Boomtowns in the Rocky Mountain States*, Los Alamos Scientific Laboratory, LA06687-MS., April 1977.
2. *Electricity from Hot Dry Rock Geothermal Energy: Technical and Economic Issues*, Los Alamos Scientific Laboratory, LA-7603-MS., April 1977.
3. *The Formulation and Implementation of U.S. Reclamation Policy*, Bureau of Indian Affairs, Albuquerque, New Mexico, June, 1979.
4. *Assessing Electricity Production from Hot Dry Rock Geothermal Resources: Methodology and Analysis*, Technical Monograph, EPRI,EA-630, Project 1017, Electric Power Research Institute, Palo Alto, September, 1979, and LASL, LA-7888-HDR.
5. *The Proposed Waste Isolation Pilot Project (WIPP) and Impacts in the State of New Mexico*, New Mexico Energy Research Institute, EMD2-67-1139, Albuquerque, NM, April, 1981.
6. *Water Management Strategies in Arid Regions*, (with H. S. Burness and J. P. Quirk), Report to the National Science Foundation, DAR-7909933, February, 1982.

7. *The Use of Hot Dry Rock Geothermal Resources for Space Heating: A Case Study*, (with C. Arundale, et al.) LA-9541-MS, Los Alamos National Laboratory, Los Alamos, September, 1982.
8. *Methods Development in Measuring Benefits of Environmental Improvements: Experimental Approaches for Valuing Environmental Commodities*, (with D.S. Brookshire, et al.), Report to the U.S. EPA Grant #CR808-893:01, Washington, DC, June, 1983.
9. *Assessing Risk-Costs for Nuclear Waste Transportation*, (with G. Harrison, P. Ganderton, T. McGuckin and F. Roach), New Mexico Waste Education and Research Consortium, Las Cruces, NM, March, 1991.
10. *Applying the Benefit-Cost Methodology for Local Rail Freight Assistance Program Applications*, companion report to 1991 New Mexico Rail Plan Update, N.M. Highway and Transportation Department, Rail Planning and Projects Bureau, Santa Fe, NM, 1991.
11. *Identifying and Measuring Nonuse Values for Natural and Environmental Resources: A Critical Review of the State of the Art*, (with G. Harrison), prepared for the American Petroleum Institute, Washington, D.C., 114 pp., April, 1992.
12. *The Economic Impacts of Controlling No<sub>x</sub> and VOC Emissions in the Atlanta Region*, (with Laura Osborne and Peter Terrebonne), prepared for the Air Protection Branch, Environmental Protection Division, Georgia Department of Natural Resources (Atlanta: November 16, 1997).
13. *Georgia's Scrap Tire Management Program: An Assessment of Economic and Environmental Viability*, (with Kelly M. Brown, Peter Terrebone, and Janusz R. Mrozek), 37 pp., Environmental Policy Center, Andrew Young School of Policy Studies, Georgia State University (Atlanta: October 9, 1998).
14. *Measures of Performance: Partnership for a Smog-free Georgia: Initial Season, Summer, 1998*, 11 pp., Environmental Policy Center, Andrew Young School of Policy Studies, Georgia State University (Atlanta: January 6, 1999).
15. *Air Quality Standards and The Atlanta Metro Area: Local and State-wide Costs of Non-Attainment*, 7 pp., Environmental Policy Center, Andrew Young School of Policy Studies, Georgia State University (Atlanta: January 26, 1999).
16. *Updated Analysis of Estimated Fees for Emissions Tests in Georgia's New/Enhanced I/M Program*, Environmental Policy Center, Andrew Young School of Policy Studies, Georgia State University (Atlanta: May 25, 1999).
17. *Performance Measures for the Environmental Protection Division's "Partnership for a Smog-free Georgia: Methods Used for Developing Measures*, 16 pp., Environmental Policy Center, Andrew Young School of Policy Studies, Georgia State University (Atlanta: October 1, 1999).

18. *Performance Measures for Georgia's "Partnership for a Smog-free Georgia: The 1999 Ozone Season*, 10 pp. plus appendix, Environmental Policy Center, Andrew Young School of Policy Studies, Georgia State University (Atlanta: November, 1999).
19. *The EPD's Enhanced Emission Testing System: An Exploration of the Pricing Issue*, 33 pp., Environmental Policy Center, Andrew Young School of Policy Studies, Georgia State University (Atlanta: January, 2000).
20. "Water Rights Transfers: Options For Institutional Reform," (with N. Norton and V. Norton), Water Policy Working Paper #2001-001, September, 2001.
21. "Enhancing In-stream Flows In The Flint River Basin: Does Georgia Have Sufficient Policy Tools?" (With N. Norton and V. Norton), Water Policy Working Paper #2001-002, September, 2001.
22. "Changing Rules For Agricultural Water Use: Policy Options Related To Metering and Forfeiture For Non-use," (with N. Norton, V. Norton, and D. Eigenberg), Water Policy Working Paper #2001-003, October, 2001.

## VII. ARTICLES PUBLISHED IN PROFESSIONAL JOURNALS

1. "Some Extensions of the Economic Theory of Exhaustible Resources," *Western Economic Journal*, VIII, 3, 209-10, September, 1969.<sup>1</sup>
2. "The Economics of Production from Natural Resources: Note," (with Oscar Burt) *American Economic Review*, LIX, 4, 985-90, December, 1969.
3. "Production and Investment in Natural Resource Industries," (with Oscar Burt) *American Economic Review*, LX, 4, 567-90, September 1970.<sup>2</sup>
4. "Water Resource Management in Arid Environs," (with D.L. Winkelmann) *Water Resources Research*, VI, 6, 1559-68, December 1970.
5. "Optimum Exploitation of Groundwater Reserves with Saltwater Intrusion," *Water Resources Research*, VIII, 6, 1414-24, December 1971.
6. "The Economics of Environmental Preservation: A Note," (with V. Norton) *American Economic Review*, 66, 6, 1021-24, December 1974.
7. "An Economic Model of Production and Investment for Petroleum Reservoirs," (with R. G. Kuller) *American Economic Review*, 64, 66-79, March 1974.<sup>3</sup>
8. "Economic Aspects of Groundwater Resources and Replacement Flows in Semiarid Agricultural Areas," (with J.W. McFarland) *American Journal of Agricultural Economics*, 56, 4, 830-31, November, 1974.
9. "Groundwater Management and Salinity Control," (with James McFarland) *Water Resources Research*, 10, 5, 909-16, October, 1974.
10. "An Economic Model for Community Resource Development," (with T. Grigalonus and E. Seay) *Canadian Journal of Agricultural Economics*, 22, 1, 58-64, February, 1974.
11. "Energy Commodities and Natural Resource Exploitation," (with R. Kuller, J. McFarland and T. Grigalonus) *Southern Economic Journal*, February, 1975.
12. "Municipal Investments for Social Infrastructure in Boomtowns," (with A. Mehr) *Natural Resources Journal*, 17, 2, April, 1977.

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<sup>1</sup>Reprinted in Vernon L. Smith (editor), *Economics of Natural and Environmental Resources*, Gordon and Breach, (New York, 1977), Chapter 1.

<sup>2</sup>Reprinted in Vernon L. Smith (editor), *Economics of Natural and Environmental Resources*, Gordon and Breach (New York, 1977), Chapter 20.

<sup>3</sup>Reprinted in Vernon L. Smith (editor), *Economics of Natural and Environmental Resources*, Gordon and Breach (New York, 1977), Chapter 7.

13. "Reservoir Management and the Water Scarcity Issue in the Upper Colorado River Basin," (with J. McFarland) *Natural Resources Journal*, 17, 1, January, 1977.
14. "Defining Upper Limits to Groundwater Development in the Arid West," (with Oscar Burt and J. McFarland) *American Journal of Agricultural Economics*, 59, 5, 943-47, December, 1977.
15. "Optimal Investment Strategies for Boomtowns: An Theoretical Analysis," (with W.D. Schulze) *American Economic Review*, 68, 3, June 1978.
16. "An Economic Analysis of the HDR Geothermal Energy Resources," *Resources and Energy*, 1, 109-23, 1978.
17. "Optimal Investments in Boomtowns: An Empirical Analysis," (with A. Mehr and W. Schulze) *Journal of Environmental Economics and Management*, 5, 3, September, 1978.
18. "Welfare Analysis of Long-term Forest Products Price Stabilization: A Note," (with R.N. Johnson) *American Journal of Agricultural Economics*, 60, 4, 689-90, November 1978.
19. "Mining Earth's Heat: Hot Dry Rock Geothermal Energy," (with G. Morris et al.) *Technology Review*, 81, 4, 1-17, February, 1979.
20. "U.S. Reclamation Policy and Indian Water Rights," (with H.S. Burness, et al.) *Natural Resources Journal*, 20, 4, 807-26, October, 1980.
21. "Environmental Trade-offs with the Adoption of Cogeneration Technologies" (with H.S. Burness and I. Paik) *Journal of Environmental Economics and Management*, 8, 45-48, 1981.
22. "The Role of Dynamic Optimization Models for Natural Resource Systems: A Case Study for HDR Geothermal Resources," (with G. Morris and I. Paik) *Management Science*, 27, 5, 559-570, May, 1981.
23. "Managing Nuclear Wastes: An Overview of the Issues," (with A.E. Utton) *Natural Resources Journal*, 21, 4, 693-701, October, 1981.
24. "Entropy and the Theory of Exhaustible Resources," (with H.S. Burness et al.) *Land Economics*, 56, 1, February, 1980.
25. "The 'New' Arizona v. California: Practicably Irrigable Acreage and Economic Feasibility" (with H.S. Burness, et al.) *Natural Resources Journal*, 22, 3, July, 1982.
26. "Practicably Irrigable Acreage and Economic Feasibility: The Role of Time, Ethics and Discounting," (with H.S. Burness, et al.) *Natural Resources Journal*, 23, 2, April, 1983.
27. "Valuing Policies which Reduce Environmental Risk" (with H.S. Burness, et al.) *Natural Resources Journal*, 23, 3, July, 1983.

28. "Environmental Management: The Policy Perspective," (with R.K. Davis, et al.) *Natural Resources Journal*, 23, 3, July, 1983.
29. "Scale Economies and Reliability in the Electric Power Industry," (with H.S. Burness and V. Loose) *Energy Journal*, 6, 1, 157-67, 1985.
30. "The Ixtapa Draft Agreement Relating to the Use of Transboundary Groundwaters," (with the Ixtapa Study Group) *Natural Resources Journal*, 25, 3, 713-72, July, 1985.
31. "Thermodynamic and Economic Concepts as Related to Resource-Use Policies," (with H.S. Burness) *Land Economics*, 62, 3, 323-24, 1986.
32. "The Contemporary Setting for Water Management in the West: An Overview," *Water Resources Research*, 21, 11, November, 1985.
33. "Water Scarcity in New Mexico," (with V. Brajer) *N.M. Natural Resources Law Reporter*, 1, 1, 1986.
34. "Measuring the Elasticity of Substitution of Wages for Municipal Infrastructure: A Comparison of the Survey and Wage Hedonic Approaches," (with W. Schultz et al.) *Journal of Environmental Economic Management*, 13, 3, 269-76, September, 1986.
35. "The Strengths and Weaknesses of Water Markets as they Affect Water Scarcity and Sovereignty Interests in the West," (with V. Brajer, A. Church, and P. Farrah) *Natural Resources Journal*, 29, 2, 489-511, Spring, 1989.
36. "Seleccion de la superficie optima para el cubrimiento con tela de plastico: Un caso de estudio," (with V. Brajer) *El Trimestre Economico*, 3, 223, 571-90, June-September, 1989.
37. "Legal and Administrative Uses of Economic Paradigms: A Critique," *Natural Resources Journal*, 31, 2, April, 1991.
38. "The Use of Water Pricing as a Means for Enhancing Efficiency in Irrigation: Case Studies in Mexico and the U.S.," (with V. Nercessiantz) *Natural Resources Journal*, 32(4), October, 1992.
39. "Water Resources Management in Georgia: Lessons From Experiences in the Western States," *Journal of Agribusiness*, 11,2, 85-100, Fall, 1993.
40. "Was the *Ohio* Court Well Informed in their Assessment of the Accuracy of the Contingent Valuation Method?" (with G. Harrison) *Natural Resources Journal*, 34(1), Winter, 1994.
41. "Hypothetical Surveys and Real Economic Commitments," (with H. Neill, P. Ganderton, G. Harrison and T. McGuckin), *Land Economics*, 70, 2, 145-154, May, 1994.

42. "Substitution Biases in CVM Values," (with P. Ganderton and T. McGuckin), *American Journal of Agricultural Economics*, 76, 205-214, May, 1994.
43. "The Measurement and Decomposition of Nonuse Values: A Critical Review," (with G. Harrison), *Environmental and Resource Economics*, f: 225-247, 1995.
44. "Homegrown Values and Hypothetical Surveys: Is the Dichotomous Choice Approach Incentive-Compatible?" (with G. Harrison and E. Rutstrom), *American Economic Review*, 85(1), 2-7, March, 1995.
45. "Wastewater Infrastructure: Challenges for the Sustainable City in the New Millennium," (with Bruce Beck), *Habitat International*, 20(3), 405-420, September, 1996.
46. "Are Hypothetical Referenda Incentive Compatible?" (with G. Harrison, Stephen Elliot and J. Murphy), *Journal of Political Economy*, 3(105), 609-621, June, 1997.
47. "A Learning Design for Reducing Hypothetical Bias in the Contingent Valuation Method, " (with David Bjornstad and Laura Osborne), *Environmental and Resource Economics*, 10(3), 207-211, 1997.
48. "Are Realistic Referenda Real, " (with Laura Osborne), *Land Economics*, 74(2), May, 1998.
49. "Unbiased Value Estimates for Environmental Goods: A Cheap Talk Design for the Contingent Valuation Method, " (with Laura Osborne), *American Economic Review*, 89(3), 649-665, June, 1999.
50. "Estimating Changes in Peak and Off-Peak Traffic Patterns Attributable To Voluntary Mobile Source Emission Reduction Programs," (with Mary Beth Walker), *Applied Economics*, Vol. 32, pp. 1719-1726, 2000.
51. "Scrap Tire Disposal: Three Principles for Policy Choice," (with M. Brown, J. Mrozek, and P. Terrebonne), *Natural Resources Journal*, Vol 41(1), 8-22, Winter 2001.
52. "Measuring the Effectiveness of Voluntary Policy Options for Controlling Air Quality: A Case Study," (with Mary Beth Walker), *J. Public Affairs and Issues* Vol. 5, Fall 2001.
53. "Induced Value Tests of the Referendum Voting Mechanism" (with L. Taylor, M. McKee, and Susan Laury), *Economic Letters* 71, 61-65, 2001.

## **VIII. WORK IN PROGRESS**

1. "Investigating Participation in Government Programs: Validating Behavioral Arguments," (with M. McKee), submitted to *J. Pub. Admin.*

2. "Cultural Affects Comparisons of Tax Compliance Behavior, " (with J. Martinez and M. McKee, submitted to the *Econ. Journal*).
3. "Water Management in Eastern States: Are Water Markets Feasible?" (with N. Norton and V. Norton), submitted to the *Natural Resources J*.
4. "Enhancing In-stream Flows: Do Riparian States Have Sufficient Policy Tools? " (with N. Norton and V. Norton), submitted to *Water Resources Research*.
5. "Multiple cheating strategies for tax reports with deductions and income," (with J. Martinez and M. McKee), submitted to the *Southern Econ. J*.
6. "Repeated-offer Auction Experiments: An Application To Georgia's Drought Protection Policy, " (with Susan Laury and Charles Holt), submitted to the *J. Econ. Lit*.
7. "Tax Compliance With Changing Tax Rates: Are Experimental Results Affected By Saliency? " (with James Alm, Jorge Martinez, and Michael McKee).
8. "The Ultimatum Game: An Analysis of Cultural Effects On Cooperative Behavior, " (with Michael McKee).

#### **IX. ARTICLES PUBLISHED IN PROCEEDINGS (Selected)**

1. "The Conjunctive Management of Energy Related Resources," (with David Whipple) *Proceedings of the 44th National Meeting of the Operations Research Society of America*, San Diego, November 12-14, 1973.
2. "The Transition to Alternative Energy Sources," (with W. D. Schulze and S. Ben-David) *Proceedings of the American Society of Mechanical Engineers*, Albuquerque, NM, March 18, 1977.
3. "Long-term Alternatives Between Production Rate and Supply of Oil and Gas," (with J. McFarland, R. Springer and E. Monash) *Proceedings of the Pacific Area Chemical Engineering Conference*, Denver, CO, August 29-30, 1977.
4. "Groundwater Management: A Methodological Overview," *Proceedings of the California Water Resources Center*, Report No. 41, University of California, Davis, November, 1977.
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8. "The Valuation of Public Goods: The Case of Municipal Infrastructure," (with H.S. Burness) *Proceedings of the 4th U.S.-U.S.S.R. Symposium on Comprehensive Analysis of the Environment*, sponsored jointly by the U.S. Department of state and the EPA, Jackson, WY, October 21-27, 1979.
9. "The Economics of Western Water: Comments on Indian Water Rights," *Proceedings, Conference on Western Water Issues*, May 17-18, 1979, EQL Memo No. 22, California Institute of Technology, Pasadena, September, 1979.
10. "Perceived Risk and Catastrophic Events," (with H.S. Burness and R. Norton) *Proceedings of the Western Economic Association Meetings*, San Diego, CA, June 15-17, 1980.
11. "The States Role in Managing and Conserving Groundwater: The Case for Establishing State Proprietary Interests in State Resources," (with C. DuMars, et al.) *Proceedings, Western States Water Council, Water Management Symposium*, Salt Lake City, September 13-14, 1984.
12. "Managing Water Resources in Georgia: Lessons From Experiences in the Western States," J.W. Fanning Lecture in the *Proceedings of the Agricultural Economics Association of Georgia*, Annual Meetings, Athens, GA, October 28, 1993.
13. "The Use of Water to Enhance Water Use Efficiency in Irrigation: Case Studies in Mexico and the United States," (with V. Nercissiantz), pp. 79-96 in Le Moigne, G., K. William Easter, Walter J. Ochs and Sandra Giltner (ed.s), *Water Policy and Water Markets*, Selected Papers and Proceedings from the World Bank's Ninth Annual Irrigation and Drainage Seminar, Annapolis, MD, December 8-10, 1992 (Washington, DC, July, 1994).
14. "Relating Stated and Revealed Preferences: Challenges and Opportunities," *Proceedings of the DOE/EPA Workshop on "Using Contingent Valuation to Measure Non-Market Values,"* Herndon, VA, May 19-20, 1994.
15. "Economic and Planning Issues Relevant for the Management of Interstate Water" pp. 21-24 in the *Proceedings of the 1995 Georgia Water Resources Conference* (K. Hatcher, ed.), University of Georgia, Athens, 1995.
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17. "The Case for Water Markets as the Best Means for Effective Water Allocation," (with P. Terrebonne), *Proceedings of the 1996 North American Water and Environment Congress*, Anaheim, CA, June 22-28, 1996.

## X. PAPERS PUBLISHED AS BOOK CHAPTERS

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2. "Some Extensions of the Economic Theory of Exhaustible Resources," Chapter 1 in Smith, Vernon L. (ed.), *Economics of Natural and Environmental Resources*, Gordon and Breach (New York, 1977).
3. "An Economic Model of Production and Investment for Petroleum Reservoirs," (with R. Kuller), Chapter 7 in Smith, Vernon L. (ed.), *Economics of Natural and Environmental Resources*, Gordon and Breach (New York, 1977).
4. "Production and Investment in Natural Resource Industries," (with Oscar Burt), Chapter 20 in Smith, Vernon L. (ed.), *Economics of Natural and Environmental Resources*, Gordon and Breach (New York, 1977).
5. "Managing Water Resources for Irrigation and Lagoon Control in Northwest Mexico," (with D. Hueth and H. Lampe) Chapter 5 in Crosson, P., R. Cummings and K. Fredericks (eds.), *Selected Water Management Issues in Latin American Agriculture*, Baltimore, Johns Hopkins Press, 1978.
6. "Investments for Municipal Infrastructure in Energy-Impacted Communities," (with C. Arundale) Chapter 13 in *Coal Models and Their Use in Government Planning*, J. Quirk, K. Terasawa and D. Whipple (eds.), Praeger, NY, 1982.
7. "Implementing Multiple Purpose Planning for Water Reclamation Projects in Developing Countries," (with H.S. Burness) in C.W. Howe (ed.) *Managing Renewable Natural Resources in Developing Countries*, Westview Press, Boulder, CO, 1982.
8. "Joint Management of Water Resources in Irrigation and Lagoon Environments," (with H. Lampe and J. McFarland) Chapter 18 in *The Book of CHAC: Programming Studies for Mexican Agricultural*, R. D. Norton and S.M. Solis (eds.), John Hopkins Press, Washington, DC, 1983.
9. "On Valuing Acid Depositions-Induced Materials Damages: A Methodological Inquiry," (with T.D. Crocker) in Adams, D.D. and W. Page (eds.), *Acid Deposition: Environmental Economic and Policy Issues*, pp. 359-383, Plenum Press, 1985.
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15. "Eficacia, Equidad Y Soberania en la Gestion del Agua Subterranea: Estudio del Caso de un Acuifero Tributario en Nuevo Mexico," (with S. Nunn and Lee Brown) in Klink, Federico Aguilera and Susan Christopher Nunn (eds.), *Problemas en la Gestion del Agua Subterranea: Arizona, Nuevo Mexico*, Canarias, pp. 81-157, Universidad de la Laguna, Secretariado de Publicaciones, Canary Islands, 1989.
16. "Economic Aspects of Water Resources Administration: The Pitfalls of 'Bad' Law," Chapter 5 in *La Gestion de los Recursos Hidricos en Visperas del Siglo XXI, Actas y Ponencias*, pp. 397-412, Generalitat Valenciana, (Valencia, Spain, December, 1990).
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19. "Valuing Environmental Goods: A Critical appraisal of the State of the Art," (with H. Burness, P. Ganderton and G. Harrison) Chapter 22 in A. Dinar and D. Zilberman (eds.), *The Economics and Management of Water and Drainage in Agriculture*, Kluwer Academic Publishers, Boston, March, 1991.
20. "Valuing Environmental Damages With The CVM: A Critique," (with P. Ganderton, and T. McGuckin) Chapter III in Martin, Wade E. (ed.), *Environmental Economics and the Mining Industry*, Kluwer Academic Publishers (Boston: 1994).
21. "Contingent Valuation," (with G. Harrison), chapter in Eblen, R.A. and W.R. Eblen (ed.s), *The Encyclopedia of the Environment*, (Boston: Houghton Mifflin), 1994. Reprinted in Cavendish, Marshall, *The Marshall Cavendish Encyclopedia of the Environment*, Marshall Cavendish Corporation (Tarrytown, NY: 2000).
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23. "Assessment of Economic Impacts and Commercial Transfers," (with P. Sarinen, J. Sherk, and P. Terrebonne) Chapter 5.4 in *Standard Guidelines for the Shared Use of Transboundary Water Resources*, American Society of Civil Engineers (Washington, DC:1997).
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26. "The 'Bad News' Principle: An Alternative Test for Options Value," in John List (editor), *Issues in Contemporary Environmental Economics*, Edward Elgar Publishers (Northampton, MA: forthcoming 2001).

## **XI. SELECTED PAPERS AND REPORTS**

1. "Economic Aspects of Water Resource Management in Arid Environs," read at the First World Symposium on Arid Zones, Mexico City, Mexico, November 9-12, 1970.
2. "Water Resource Management Problems in Northern Mexico," presented at the Ford Foundation sponsored workshop in Problems of Agriculture Development in Latin America, Caracas, Venezuela, May 17-19, 1971.
3. "A Report to the World Bank on Water Planning in Mexico," (with other RFF staff) Resources For The Future, Inc., Washington, DC, January, 1973.
4. "Optimal Scale and Management Strategies for an HDR Geothermal Facility," (with S. Nunn and J. McFarland) report to the Los Alamos Scientific Laboratory, August, 1976.
5. "Prices, Costs, and Taxes in the Petroleum Industry," (with R. Hageman and J. McFarland) report to the Los Alamos Scientific Laboratory, August, 1976.
6. "Reduction of Water Allocation to Irrigated Agriculture in New Mexico: Impacts and Technological Change," (with M. Gisser) report to the New Mexico Energy Resources Board, December, 1976.
7. "Wage-Infrastructure Trade-Offs in Boomtowns: Implications for Investment Planning," (with W. Schulze, et al.) report to the Los Alamos Scientific Laboratory, August, 1977.

8. "Valuing Preservation of Unique Environmental Resources," AEA/AERE Session, Annual Meetings of the American Economics Assn., New York, December 28-30, 1977.
9. "Social Valuation of Municipal Infrastructure in Irrigated Agriculture," (with J. McFarland) American Economics Association Meetings, Association of Grants Economics Session, Chicago, August 29, 1978.
10. "Potential Impacts of Tax subsidy Programs on Irrigated Agriculture" (with J. McFarland) American Economics Assn., Annual Meetings, Association of Grants Economics Session, Chicago, August 29, 1978.
11. "Public Valuation of Municipal Infrastructure in Small Towns," Annual Meetings of the Western Agricultural Economics Association, Bozeman, Montana, July 24-25, 1978.
12. "An Economic Analysis of the Hot Dry Rock Geothermal Resource," (with G. Morris, et al.) presented at the 53rd Annual Conference of the Western Economics Association, Honolulu, June 20-26, 1978.
13. "An Application of the Pure Theory of Exhaustion," Annual Meeting of the American Agricultural Economics Association, Blacksburg, Virginia, August 5-6, 1978.
14. "Power Produced from Hot Dry Rock Geothermal Resources: A Case Study for the Imperial Valley," (with G. Morris) report to the U.S. Department of Energy, December, 1979, 40 pp.
15. "Damage Estimates for Suspended Particulate Air Pollution," (with H.S. Burness) report prepared for the U.S. Environmental Protection Agency, September, 1979, revised, 1982.
16. "Economic Factors Relevant for Electric Power Produced from Hot Dry Rock Geothermal Resources: A Case Study for the Fenton Hill, New Mexico Area," (with G. Morris) report to the U.S. Department of Energy, December, 1979, 35 pp.
17. "Scale Economies and Reliability in the Electricity Power Industry," (with H.S. Burness and V. Loose) Los Alamos Scientific Laboratory, 1979.
18. "Socioeconomic Issues Related to Nuclear Waste Disposal," Proceedings, Symposia on Nuclear Waste Disposal, Office of Nuclear Waste Management, Batelle Laboratories, Columbus, Ohio, December 10-11, 1980.
19. "Estudio Integral Para La Ordenacion De La Cuenca Del Proyecto Hidroelectrico 'El Cajon'," report to Interamerican Development Bank, May, 1981.
20. "Respiratory Health Effect from Air Pollution: An Overview," report to the U.S. Environmental Protection Agency, draft, December, 1981, revised, April, 1982.

21. "On Valuing Air Pollution-Induced Materials Damages: A Methodological Inquiry," (with T.D. Crocker) report to the U.S. EPA, Grant R808893010, April, 1983.
22. "Report of the State Water Law Study Committee," Institute of Public Law, UNM, January, 1984.
23. "Setting Priorities for Western Resources," (with Tom Bahr) presented at the 20th Annual Conference and Symposium, American Water Resources Association, Washington, DC, August 16, 1984.
24. "State Appropriation of Unappropriated Groundwater: A Strategy for Insuring New Mexico a Water future," (with C. DuMars, et al.) January, 1986.
25. "Policy Interfaces Between Commercial Agriculture and Natural Resources: Some Western Perspectives," (with Glenn W. Harrison) presented at the commercial Agricultural and Resource Workshop, Department of Economics, University of Maryland, January 22, 1989.
26. "Law and Economics," presented at the Third World Conference on Water Law and Administration, Alicante, Spain, December 11-14, 1989.
27. "Valuing Environmental Damages with the CVM: A Critique," paper given for the 1990 John M. Olin Distinguished Lectureship, Colorado School of Mines, November 9, 1990, 13 pp.
28. "A New Approach to Eliciting Incentive-Compatible Values for Public Goods: The Inference Game," (with Glenn Harrison) presented at the annual meeting of the Public Choice Society, New Orleans, March 15-17, 1991.
29. "Valuing Environmental Goods: The Social Choice Elicitation Method," (with P. Ganderton, G. Harrison and T. McGuckin) presented at the annual meetings of the Economic Science Association, Tucson, AZ, October 18-20, 1991.
30. "Hypothetical Surveys, Provision Rules and Real Economic Commitments," (with H. Neill, P. Ganderton, G. Harrison and T. McGuckin) presented at the annual meetings of the Economic Science Association, Tucson, AZ, October 13-14, 1992.
31. "Water Rights Markets as a Tool For Enhancing Water Use Efficiency," presented at the Water Rights Conference, sponsored by the World Bank, Annapolis Maryland, December 9, 1992.
32. "Water Resources Management in Georgia: Lessons From Experiences in the Western States," J.W. Fanning Lecture, Georgia Association of Agricultural Economists, Athens, October 28, 1993.
33. "Georgia's Scrap Tire Management Program: An Assessment of Economic and Environmental Viability," (with K. Brown, P. Terrebonne, and J. Mrozek), Georgia Department of Natural Resources, October, 1998.
34. "Georgia's Partnership for a Smog-free Georgia: Measures of Program Performance, Summer, 1998," Office of Air Quality, Environmental Protection Division, December, 1998.

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36. "Air Quality Standards and the Atlanta Metro Area: Local and State-wide Costs of Non-Attainment," Report for the Environmental Protection Division, January, 1999.
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