

CURRICULUM VITAE

Name: W. Michael Hanemann

Title: Chancellor's Professor, Agricultural and Resource Economics & The Goldman School of Public Policy

Address: Department of Agricultural and Resource Economics
University of California
Berkeley, California 94720
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Birthdate and Place: August 26, 1944, Manchester, England

Citizenship: U. S. citizen

Education

Institution	Degree	Year	Field
Oxford University, England	B.A.	1965	Philosophy, Politics, and Economics
London School of Economics	M.Sc.	1967	Development Economics
Harvard University	M.A.	1973	Public Finance and Decision Theory
Harvard University	Ph.D.	1978	Economics

Dissertation title: "A Theoretical and Empirical Study of the Recreation Benefits from Improving Water Quality in the Boston Area," Harvard University, 1978, 532p.

Employment

1967-68: Assistant to the Director, Unit for Economic and Statistical Studies on Higher Education, London School of Economics.

1970-1975: Teaching Fellow, Department of Economics, Harvard University.

1970-1975: Staff Economist/Consultant, Urban Systems Research & Engineering, Inc., Cambridge, Massachusetts.

1976: Lecturer, Department of Economics, Northeastern University, Boston, Massachusetts.

1976-1978: Acting Assistant Professor, Department of Agricultural and Resource Economics, University of California at Berkeley.

1978-1984: Assistant Professor, Department of Agricultural and Resource Economics, University of

California at Berkeley.

1984-1995: Associate Professor, Department of Agricultural and Resource Economics, University of California at Berkeley.

1995-1999: Professor, Department of Agricultural and Resource Economics, University of California at Berkeley.

1999- : Chancellor's Professor, Department of Agricultural and Resource Economics and Goldman School of Public Policy, University of California at Berkeley

Other Professional Activities

Director, California Climate Change Center at UC Berkeley (2003-)

Chair, Organizing Committee, Second World Congress of Environmental & Resource Economists (2002)

Member, California Bay-Delta Public Advisory Committee, Committee on Drinking Water (2002-)

Member, US Environmental Protection Agency, Environmental Economics Advisory Committee (2000-)

University Fellow, Resources for the Future (2001-).

Chancellor's Professor, (1999-).

Member, Board of Directors, Association of Environmental & Resource Economists (1995-97).

Member of the National Academy of Sciences/National Research Council Committee to Review the Glen Canyon Environmental Studies Program (1986-91) and the Committee on Wolf and Bear Control in Alaska (1996-97).

Awards

Honorary Ph.D., Swedish University of Agricultural Sciences, October 2003.

Winner, Association of Environmental and Resource Economists, Publication of Enduring Quality, 1999

Winner, American Agricultural Economics Association Quality of Research Discovery Award, 1990.

Winner, Western Agricultural Economics Association Outstanding Journal Article Award, 1990.

Supervised Winner of Resources for the Future's Prize for Best Ph.D. Dissertation in Natural Resource Economics, 1989.

Publications

Refereed Articles

- A-1 Chugh, Lal C., W. Michael Hanemann, and S. Mahapatra. "Impact of Pollution Control Regulations on the Market Risk of Securities in the U. S." *Journal of Economic Studies*, Vol. 5 (May, 1978), pp. 64-70.
- A-2 Hanemann, W. Michael. "Measuring the Worth of Natural Resource Facilities." *Land Economics*, Vol. 56 (October, 1980), pp. 482-490.
- A-3 _____. "Marginal Welfare Measures for Discrete Choice Models." *Economics Letters*, Vol. 13 (1983), pp. 129-136.
- A-4 _____. "Entropy as a Measure of Consensus in the Evaluation of Recreation Site Quality." *Journal of Environmental Management*, Vol. 18 (April, 1984), pp. 241-251.
- A-5 _____. "Discrete/Continuous Models of Consumer Demand." *Econometrica*, Vol. 52 (May, 1984), pp. 541-561.
- A-6 _____. "Welfare Evaluations in Contingent Valuation Experiments with Discrete Responses." *American Journal of Agricultural Economics*, Vol. 66 (August, 1984), pp. 332-341.
- A-7 _____. "Some Issues in Continuous- and Discrete-Response Contingent Valuation Studies." *Northeastern Journal of Agricultural Economics*, Vol. 14 (April, 1985), pp. 5-13.
- A-8 Fisher, A. C., and W. Michael Hanemann. "Environmental Damages and Option Values." *Natural Resources Modeling*, Vol. 1 (Fall, 1986), pp. 111-124.
- A-9 Fisher, Anthony C., and W. Michael Hanemann. "Quasi-Option Value: Some Misconceptions Dispelled." *Journal of Environmental Economics and Management*, Vol. 14 (1987), pp. 183-190.
- A-10 Hanemann, W. Michael. "Welfare Evaluations in Contingent Valuation Experiments with Discrete Responses: Reply." *American Journal of Agricultural Economics*, Vol. 69 (February, 1987), pp. 185-186.
- A-11 Bockstael, Nancy E., W. Michael Hanemann, and Catherine L. Kling. "Estimating the Value of Water Quality Improvements in a Recreational Demand Framework." *Water Resources Research*, Vol. 23 (May, 1987), pp. 951-960. Reprinted in *Environmental Valuation*, ed. by Kenneth G. Willis, Cheltenham, U.K.: Edward Elgar (in press).
- A-12 Bockstael, Nancy E., Ivar E. Strand, and W. Michael Hanemann. "Time and the Recreational Demand Model." *American Journal of Agricultural Economics*, Vol. 69 (May, 1987), pp. 293-302. Reprinted in *Environmental Economics: A Reader*, ed. by Anil Markandya and Julie Richardson, New York: St. Martin's Press, (1992), 171-183.
- A-13 Hanemann, W. Michael. "Information and the Concept of Option Value." *Journal of Environmental Economics and Management*, Vol. 16, No. 1 (January, 1989), pp. 23-37.

- A-14 La France, Jeffrey T., and W. Michael Hanemann. "The Dual Structure of Incomplete Demand Systems." *American Journal of Agricultural Economics*, Vol. 71 (May, 1989), pp. 262-274.
- A-15 Hanemann, W. Michael. "Welfare Evaluations in Contingent Valuation Experiments with Discrete Response Data: Reply." *American Journal of Agricultural Economics*, Vol. 71 (November, 1989), pp. 1057-1061.
- A-16 Carson, Richard T., W. Michael Hanemann, and Dan Steinberg. "A Discrete Choice Contingent Valuation Estimate of the Value of Kenai King Salmon." *Journal of Behavioral Economics*, Vol. 19, Number 1 (1990), pp. 53-68.
- A-17 Fisher, Anthony C., and W. Michael Hanemann. "Information and the Dynamics of Environmental Protection: The Concept of the Critical Period." *Scandinavian Journal of Economics*, Vol. 92, Number 3 (1990), pp. 399-414.
- A-18 Fisher, Anthony C., and W. Michael Hanemann. "Option Value: Theory and Measurement." *European Review of Agricultural Economics*, Vol. 17 No. 2 (1990), pp. 167-180.
- A-19 Hanemann, W. Michael. "Willingness to Pay and Willingness to Accept: How Much Can They Differ?" *American Economic Review*, Vol. 81, Number 3 (1991), pp. 635-647. Reprinted in *The Economics of the Environment*, ed. by W.E. Oates, Cheltenham, U.K.: Edward Elgar, (1994), pp. 471-483.
- A-20 Fisher, Anthony C., W. Michael Hanemann, and Andy Keeler. "Integrating Fishery and Water Resource Management: A Biological Model of a California Salmon Fishery." *Journal of Environmental Economics and Management*, Vol. 20 (1991), pp. 234-261.
- A-21 Hanemann, Michael, John Loomis, and Barbara Kanninen. "Statistical Efficiency of Double-Bounded Dichotomous Choice Contingent Valuation." *American Journal of Agricultural Economics*, Vol. 73 (November, 1991), pp. 1255-1263.
- A-22 Hanemann, Michael, and Edward Morey. "Separability, Partial Demand Systems and Consumer's Surplus Measures." *Journal of Environmental Economics and Management*, Vol. 22, No. 3 (1992), pp. 241-258.
- A-23 Hanemann, W. Michael, Per-Olov Johansson, Bengt Kriström, and Leif Mattson. "Natural Resource Damages for Chernobyl." *Environment & Resource Economics*, Vol. 2 (1992), pp. 523-525.
- A-24 Hanemann, W. Michael, and Ivar E. Strand. "Natural Resource Damage Assessment: Economic Implications for Fisheries Management." *American Journal of Agricultural Economics*, Vol. 75, (December, 1993).
- A-25 Hanemann, W. Michael. "Designing New Water Rates for Los Angeles." *Water Resources Update*, The Universities Council on Water Resources, Issue No. 92, Carbondale, IL, (Summer, 1993).
- A-26 Hanemann, W. Michael. "Incentives for Protecting North American Biodiversity." *The Economics of Biodiversity*, Vol. 1, No. 3 (Summer, 1994), pp. 24-25.

- A-27 Hanemann, W. Michael. "Valuing the Environment Through Contingent Valuation." *Journal of Economic Perspectives*, Vol. 8, No. 4 (Fall, 1994), pp. 19-43.
- A-28 Hanemann, W. Michael. "Improving Environmental Policy: Are Markets the Solution?" *Contemporary Economic Policy*, Vol. 13, (January, 1995), pp. 74-79.
- A-29 Hewitt, Julie A., and W. Michael Hanemann. "A Discrete/Continuous Choice Model of Demand Under Block Rate Pricing." *Land Economics*, Vol. 71, No. 2 (May, 1995), pp. 173-192.
- A-30 Albers, Heidi J., Anthony C. Fisher, and W. Michael Hanemann. "Valuation and Management of Tropical Forests: A Theoretical and Empirical Analysis." *Environment & Resource Economics*, Vol. 8, No. 1 (July, 1996), pp. 39-61.
- A-31 Carson, Richard T., W. Michael Hanemann, Raymond J. Kopp, Jon A. Krosnick, Robert C. Mitchell, Stanley Presser, Paul A. Ruud, and V. Kerry Smith with Michael Conaway, and Kerry Martin. "Temporal Reliability of Estimates from Contingent Valuation." *Land Economics*, Vol. 73, No. 2 (May, 1997), pp. 151-163.
- A-32 Carson, Richard T., W. Michael Hanemann, Raymond J. Kopp, Jon A. Krosnick, Robert C. Mitchell, Stanley Presser, Paul A. Ruud, and V. Kerry Smith with Michael Conaway, and Kerry Martin. "Referendum Design and Contingent Valuation: The NOAA Panel's No-Vote Recommendation." *Review of Economics and Statistics*, Vol. 80, N. 2 (May, 1998), pp. 335-338.
- A-33 Carson, Richard T., W. Michael Hanemann, Raymond J. Kopp, Jon A. Krosnick, Robert C. Mitchell, Stanley Presser, Paul A. Ruud, V. Kerry Smith with Michael Conaway, and Kerry Martin, Referendum Design and Contingent Valuation: The NOAA Panels No-Vote Recommendation, *Review of Economics and Statistics*, Vol. 80, No. 2 (May, 1998), pp. 335-338.
- A-34 Hanemann, W.H. "Adaptation and its measurement" *Climatic Change*, Vol. 45:3/4, June 2000, pp. 571-581.
- A-35 Krosnick, J.A. et al. "The Impact of 'No Opinion' Response Options on Data Quality: Non-Attitude Reduction or an Invitation to Satisfice?" *Public Opinion Quarterly*, Vol. 66, 2002, pp 371-401.
- A-36 Swait, J. et al. "Context Dependence and Aggregation in Disaggregate Choice Analysis" *Marketing Letters*, 13:3 (2002), pp. 195-205.
- A-37 Cooper, J., W.M. Hanemann and G. Signorello, "One-and-One-Half-Bound Dichotomous Choice Contingent Valuation" *Review of Economics and Statistics*. November 2002; 84(4): 742-750.
- A-38 Hanemann, W. Michael. "Willingness to Pay and Willingness to Accept: How Much Can They Differ? Reply" *American Economic Review*. March 2003; 93(1): 464.
- A-39 Carson, R.T., R.C. Mitchell, W.M. Hanemann, R. J. Kopp, S. Presser, P. A. Ruud. "Contingent Valuation and Lost Passive Use: Damages from the Exxon Valdez Oil Spill." *Environmental and Resource Economics*, July 2003, Volume 25, Issue 3, pp. 257-286.

- A-40 Kinzig, Ann, et.al. "Managing Uncertainty at the Science-Policy Interface," May 2003. *Ambio*,
- A-41 Katherine Hayhoe et al. "Emissions Pathways, Climate Change, and Impacts on California," *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* August 2004; 101 (34).
- A-42 Schlenker, W., W. M. Hanemann and A. C. Fisher. "Will U.S. Agriculture Really Benefit from Global Warming? Accounting for Irrigation in the Hedonic Approach," *American Economic Review* (March 2005) 395-406.
- A-43 Sethi, G. et al. "Fishery Management Under Multiple Uncertainty," *Journal of Environmental Economics and Management* (in press).
- A-44 Wiktor Adamowicz et al. "Group Decisions: Analyzing Decision Strategy and Structure in Households," *Marketing Letters* (in press)
- A-45 Schlenker, W., W. M. Hanemann, and A. C. Fisher, "Water Availability, Degree Days, and the Potential Impact of Climate Change on Irrigated Agriculture," *Climatic Change* (in press).
- A-46 Schlenker, W., W. M. Hanemann, and A. C. Fisher, "The Impact of Global Warming on US Agriculture: An Econometric Analysis of Optimal Growing Conditions," *Review of Economics and Statistics* (in press).

***Nonrefereed Research Articles
(Research Reports)***

- B-1 Hanemann, W. Michael, and C. Binkley. *The Recreation Benefits of Water Quality Improvements: Analysis of Day Trips in an Urban Setting*. EPA-600/5-78-010. Report submitted to the U. S. Environmental Protection Agency by Urban Systems Research and Engineering, Inc. Washington, D. C.: U. S. Environmental Protection Agency, 1978.
- B-2 King, Diana; Hanemann, W. Michael; and Nimmons, John. *The Role of Gas and Electric Utilities in Direct Applications of Geothermal Resources*. Earl Warren Legal Institute, University of California. Berkeley, March, 1980.
- B-3 Hanemann, W. Michael (contributor). *Market Shares Estimation Task Force Report: Projections for Hydrothermal Direct-Heat Systems Market Shares*. U.S. Department of Energy, December, 1980.
- B-4 Hanemann, W. Michael. *Welfare Evaluations with Simulated Hypothetical Market Data: Bishop and Heberlein Revisited*. Department of Agricultural and Resource Economics, University of California. Berkeley, July, 1983.
- B-5 Fairfax, Sally K.; and Hanemann, W. Michael, eds. *Emerging Research Needs and Priorities Concerning Minerals Development on National Forest Lands*. Department of Agricultural and Resource Economics, University of California. Berkeley, March, 1983.
- B-6 Stern, Martin W.; Hanemann, W. Michael; and Eckhouse, Kathy. *A Case Study of Energy and Process Substitution for Frozen Broccoli: Geothermal Energy and the Retortable Pouch*. Department of Agricultural and Resource Economics, University of California. Berkeley, August,

1983.

- B-7 Hanemann, Michael, Ivar Strand, and Thomas Wegge. *Albacore Sportfishing Economic Study*. Prepared for the National Marine Fisheries Service. Sacramento, California: Jones and Stokes Associates, Inc., May, 1986.
- B-8 Hanemann, W. Michael. *Economic Valuation of Changes in the Catch of Sacramento River Chinook Salmon*. Department of Agricultural and Resource Economics, University of California. Berkeley, October, 1986.
- B-9 Hall, C. H.; Lichtenberg, E. R.; Patton, S. E.; Layton, D. W.; Hanemann, W. M.; and Stuermer, D. H. *Costs of Alternative Treatment Technologies for 1,2-Dibromo-3-Chloropropane (DBCP) in California Groundwater Supplies*. Livermore, California: Lawrence Livermore National Laboratory, May, 1987.
- B-10 Carson, Richard T., W. Michael Hanemann, and Thomas C. Wegge. *Final Report: Juneau Area Economic Study*. Prepared for the Alaska Department of Fish and Game. Jones and Stokes Associates, Sacramento, California, December, 1987.
- B-11 Carson, Richard T., W. Michael Hanemann, and Thomas C. Wegge. *Final Report: Southcentral Alaska Sport Fishing Economic Study*. Prepared for the Alaska Department of Fish and Game. Jones and Stokes Associates, Sacramento, California, December, 1987.
- B-12 Hanemann, W. M., and L. Dale. *Reasonable Municipal and Industrial Use in 2010 by SWP Contractors in Southern California and Reasonable Municipal and Industrial Use in 2010 in the Central Coast and San Francisco Bay HSAs*. Consultant's report submitted to the State Water Resources Control Board, Berkeley, 1988.
- B-13 Dale, L.; and Hanemann, W. M. *The Cost of Re-Operating New Don Pedro Reservoir to Increase Spring Flow to the San Joaquin River*. Department of Agricultural and Resource Economics, University of California. Berkeley, June, 1990.
- B-14 Dale, L.; and Hanemann, W. M. *Sizing of A Groundwater Bank*. Department of Agricultural and Resource Economics, University of California. Berkeley, June, 1990.
- B-15 Jones & Stokes Associates, Inc. *Environmental Benefits Study of San Joaquin Valley's Fish and Wildlife Resources*. (JSA 87-150) Sacramento, California. Prepared by J. B. Loomis, W. M. Hanemann, and T. C. Wegge, September, 1990.
- B-16 Carson, Richard T.; Hanemann, W. Michael; Kopp, Raymond. *A Nested Logit Model of Recreational Fishing Demand in Alaska*, June, 1989.
- B-17 Jones & Stokes Associates, Inc. *Southeast Alaska Sport Fishing Economic Study* Final Research Report (JSA 88-028) Sacramento, California. December, 1991.
- B-18 Carson, Richard T.; Conaway, Michael B.; Hanemann W. Michael; Kopp, R.J.; Mitchell, R.C.; Presser, S.; Ruud, P.A. *Comments on the Benefit Analysis in the U.S. Environmental Protection Agency's Proposed Navajo Generating Station BART Action Decision Focus*. 1991.
- B-19 MacDougall, Neal, W. Michael Hanemann, and Zilberman, David. *The Economics of Agricultural Drainage* Report submitted to the Central Valley Regional Water Quality Control

Board, Standard Agreement No. 0-132-150-0. June, 1992.

- B-20 Hanemann, W. Michael. Comment submitted to the Office of Environmental Affairs, Department of Interior, in response to the Notice of Proposed Rulemaking (58 FR 39328), *Concerning Natural Resource Damage Assessments*. 1993.
- B-21 Hanemann, W. Michael; McCann, Richard. "Economic Impacts on the Northern California Hydropower System" in *Integrated Modeling of Drought and Global Warming, Impacts on Selected California Resources*. National Institute for Global Environmental Change, University of California, Davis. pp. 55-68. March, 1993.
- B-22 Dumas, Christopher; and Hanemann, W. Michael. "Simulating Impacts on the Sacramento River Fall Run Chinook Salmon Population" in *Integrated Modeling of Drought and Global Warming, Impacts on Selected California Resources*. National Institute for Global Environmental Change, University of California, Davis. pp. 69-95. March, 1993.
- B-23 Hanemann, W. Michael. "Economic Impact on Ocean Fishing" in *Integrated Modeling of Drought and Global Warming, Impacts on Selected California Resources*. National Institute for Global Environmental Change, University of California, Davis. pp. 107-112. March, 1993.
- B-24 Jones & Stokes Associates. (Chapters 3L and 3N by Hanemann, W. Michael.) "Mono Basin Water Rights of the City of Los Angeles." Environmental Impact Report. California State Water Resources Control Board, Division of Water Rights, Sacramento, California, May, 1993.
- B-25 Dumas, Christopher F., and Hanemann, W. Michael. *Economic Benefits of the United States Environmental Protection Agency's Proposed Bay-Delta Standards*. Report for United States Environmental Protection Agency, Water Management Division, San Francisco, California, November, 1993.
- B-26 Hanemann, W. Michael. *Expert Report Regarding the American Trader Oil Spill*. December 4, 1994.
- B-27 Hanemann, W. Michael. *Review of Triangle Economic Research Report on Economic Loss to Recreational Fishing in the Upper Clark Fork Basin*. State of Montana Natural Resource Damage Program, Helena: Montana, October 1995.
- B-28 Hanemann, W. Michael, Gloria Helfand, Gareth Green, and Francois Larrivee. "Economic Valuation of Changes in the Quality of Life." Department of Agricultural and Resource Economics, Working Paper No. 764, University of California. Berkeley, November, 1995.
- B-29 Hanemann, W. Michael. *The Orange County Beach Survey*. September 16, 1996.
- B-30 Hanemann, W. Michael. *The 1997 Orange County Boating and Surfing Survey*. June 6, 1997.
- B-31 Hanemann, W. Michael. *Final Conclusions Regarding Lost Recreational Damages Resulting from the American Trader Oil Spill*. August 15, 1997.
- B-32 Hanemann, W. Michael. Arsenic Rule Benefits Panel of the US EPA Science Advisory Board, *Arsenic Rule Benefits Analysis: An SAB Review*. EPA-SAB-EC-01-008, Washington DC, August 2001.

- B-33 Reports submitted by the Southern California Beach Study Research Team (Director: Michael Hanemann) to the Consortium of Funders:

Beach Recruitment Report (August, 2001)
Report on Choice Set Familiarity (August, 2001)
Report on Beach Trips by Wave (September, 2001)
Revised Report on Activities (November, 2001)
Report on Panel Participation and Attrition (December, 2001)
Beach Expenditures Report (January, 2002)
Report on Wave 4 Data Analysis (January 2002)
Report on Wave 4 Valuation (January, 2002)
Data Collection Production Report (January 2002)
Revised Contingent Behavior-Contingent Valuation Report (March, 2002)
Report on Data Collection, Checking, Cleaning, and Archiving for Phase I of the
Southern California Beach Project (March, 2002)
Report on Valuation Methodology (May, 2002)

- B-34 UST/RCRA BCI Review Panel of the SAB Executive Committee, *Underground Storage Tanks (UST) Cleanup & Resource Conservation & Recovery (RCRA) Subtitle C Program Benefits, Costs and Impacts (BCI) Assessment: An SAB Advisory*. EPA-SAB-EC-ADV-03-001, December 2002.

- B-35 Horne, Alexander, John Dracup, Michael Hanemann, Ignacio Rodriguez-Iturbe, Edward Means and James Roth, *A Technical Review of the Spanish National Hydrological Plan (Ebro River Out-of-Basin Diversion)*. Submitted to Fundacion Universidad Politecnica de Cartagena, Spain, January 7, 2003.

- B-36 Hanemann, W. Michael, Margaret S. Torn, A Review of the Report *Global Climate Change and California: Potential Implications for Ecosystems, Health and the Economy*. Consultant Report, California Energy Commission, August 2003.

Contributions to Books

- C-1 Erlenkotter, Donald, W. Michael Hanemann, Richard E. Howitt, and Henry J. Vaux, Jr. "The Economics of Water Development and Use." In *California Water Planning and Policy: Selected Issues*, edited by Ernest Engelbert. Davis: University of California, Water Resources Center, June, 1979.
- C-2 Hanemann, W. Michael. "Quality and Demand Analysis." In *New Directions in Econometric Modeling and Forecasting in U. S. Agriculture*, edited by Gordon C. Rausser. New York: Elsevier/North-Holland, Inc., 1982, pp. 55-98.
- C-3 Fisher, Anthony C., and W. Michael Hanemann. "Endangered Species: The Economics of Irreversible Damage." In *Economics of Ecosystem Management*, edited by D. O. Hall, N. Myers, and N. S. Margaris. Dordrecht: Dr. W. Junk Publishers, 1985.
- C-4 Fisher, Anthony C., and W. Michael Hanemann. "Option Value and the Extinction of Species." In *Advances in Applied Micro-Economics, Volume 4*, edited by V. Kerry Smith. Greenwich, Connecticut: JAI Press, 1986, pp. 169-190.

- C-5 Hanemann, W. Michael. "WTP and WTA as Benefit Measures—How Do They Differ? How Can They Be Measured?" In *Proceedings of a Workshop on Economic Non-Market Evaluation of Losses to Fish, Wildlife and Other Environmental Resources*, edited by Philip A. Meyer and Stephen O. Anderson. Sausalito, California: Bay Institute of San Francisco, May, 1987, pp. 20-42.
- C-6 _____. "Economics and the Preservation of Biodiversity." In *Biodiversity*, edited by E. O. Wilson. Washington, D. C.: National Academy Press, 1988.
- C-7 _____. "Commentary on 'Valuation of Genetic Resources.'" In *The Preservation and Valuation of Biological Resources*, edited by Gordon H. Orians, Gardner M. Brown Jr., William E. Kunin and Joseph E. Swierzbinski. Seattle, Washington: University of Washington, 1990, pp. 233-239.
- C-8 Loomis, John B., Thomas Wegge, W. Michael Hanemann, and Barbara Kanninen. "The Economic Value of Water to Wildlife and Fisheries in the San Joaquin Valley: Results of a Simulated Voter Referendum." In *Transactions of the 55th North American Wildlife and Natural Resources Conference*, Wildlife Management Institute, Washington, D. C., 1990, pp. 259-268.
- C-9 _____. "Reviewer's Comments" In David Imber, Gay Stevenson and Leanne Wilks, *A Contingent Valuation Survey of the Kakadu Conservation Zone*. Canberra, Australia: Resource Assessment Commission, RAC Research Paper No. 3, February, 1991, pp. 187-192.
- C-10 Loomis, John B., W. Michael Hanemann, Barbara Kanninen, and Thomas Wegge. "Willingness to Pay to Protect Wetlands and Reduce Wildlife Contamination from Agricultural Drainage." In *The Economics and Management of Water and Drainage in Agriculture*, edited by Ariel Dinar and David Zilberman. Boston: Kluwer Academic Publishers, 1991, pp. 411-429.
- C-10 Hanemann, W. Michael. "Natural Resource Damages for Oil Spills in California." In Kevin M. Ward and John W. Duffield, *Natural Resource Damages: Law and Economics*, New York: John Wiley & Sons, Inc., 1992, pp. 555-580.
- C-12 _____. "Preface: Notes on the History of Environmental Valuation in the USA." *Pricing the Environment: The European Experience*, edited by Stale Navrud, Oxford: Oxford University Press, 1992.
- C-13 Kanninen, Barbara J., David J. Chapman, and W. Michael Hanemann. "Survey Data Collection: Detecting and Correcting for Biases in responses to Mail and Telephone Surveys." In US Department of Commerce, Bureau of the Census, *Proceedings 1992 Annual Research Conference 1992*, pp. 507-522.
- C-14 Fisher, Anthony C., and W. Michael Hanemann. "Assessing Climate Change Risks: Valuation of Effects." In *Assessing Surprises and Nonlinearities in Greenhouse Warming: Proceedings of an Interdisciplinary Workshop*, edited by Joel Darmstadter, and Michael A. Toman; Washington, DC: Resources for the Future, 1993.
- C-15 Fisher, Anthony C., and W. Michael Hanemann. "Valuation of Tropical Forests." In *The Environment and Emerging Development Issues*, Vol. 1, edited by Partha Dasgupta and Karl-Göran Mäler Oxford: Clarendon Press Press, pp. 505–528, 1997.

- C-16 Hanemann, W. Michael, and Richard McCann. "Economic Impacts on the Northern California Hydropower System." In *Integrated Modeling of Drought and Global Warming, Impacts on Selected California Resources*. National Institute for Global Environmental Change, University of California, Davis. Pages 55-68. March, 1993.
- C-17 Dumas, Christopher, and W. Michael Hanemann. "Simulating Impacts on the Sacramento River Fall Run Chinook Salmon Population." In *Integrated Modeling of Drought and Global Warming, Impacts on Selected California Resources*. National Institute for Global Environmental Change, University of California, Davis. Pages 69-95. March, 1993.
- C-18 Hanemann, W. Michael. "Economic Impact on Ocean Fishing." In *Integrated Modeling of Drought and Global Warming, Impacts on Selected California Resources*. National Institute for Global Environmental Change, University of California, Davis. Pages 107-112. March, 1993.
- C-19 Hanemann, W. Michael, and Bengt Kriström. "Preference Uncertainty, Optimal Designs and Spikes." In *Advances in Environmental Economics*, edited by Per-Olov Johansson, Bengt Kriström, and Karl-Göran Mäler. England: Manchester University Press, 1995.
- C-20 Hanemann, W. Michael. "Contingent Valuation and Economics." In *Environmental Valuation New Perspectives*, edited by K.G. Willis and J.T. Corkindale, Oxon: CAB International, 1995, pp. 79-117.
- C-21 Hanemann, W. Michael. "Theory Versus Data in the Contingent Valuation Debate." In *The Contingent Valuation of Environmental Resources: Methodological Issues and Research Needs*, edited by David J. Bjornstad and James R. Kahn, Cheltenham: Edward Elgar Publishing, 1996, pp. 38-60.
- C-22 Wegge, Thomas C., W. Michael Hanemann, and John Loomis. "Comparing Benefits and Costs of Water Resource Allocation Policies for California's Mono Basin." Economic Institutions and Increasing Water Scarcity." In *Advances in the Economics of Environmental Resources: Marginal Cost Rate Design and Wholesale Water Markets*, edited by Darwin C. Hall, Greenwich, CT: JAI Press, Vol. 1., 1996, pp. 11-30.
- C-23 Hall, Darwin C., and W. Michael Hanemann. "Urban Water Rate Design Based on Marginal Cost." In *Advances in the Economics of Environmental Resources: Marginal Cost Rate Design and Wholesale Water Markets*, edited by Darwin C. Hall, Greenwich, CT: JAI Press, Vol. 1., 1996, 95-122.
- C-24 Hanemann, W. Michael. "Determinants of Urban Water Use." Chapter 2 in *Urban Water Demand Management and Planning*, edited by Duane Baumann, John Boland, and Michael Hanemann. New York: McGraw Hill, pp. 31-75, 1998.
- C-25 Hanemann, W. Michael. "Price and Rate Structures." Chapter 5 in *Urban Water Demand Management and Planning*, edited by Duane Baumann, John Boland, and Michael Hanemann. New York: McGraw Hill, pp. 137-179, 1998.

- C-26 Hanemann, W. Michael, and Barbara Kanninen. "The Statistical Analysis of Discrete-Response." In *Valuing the Environment Preferences: Theory and Practice of the Contingent Valuation Method in the US, EC and Developing Countries*, edited by Ian Bateman and Ken Willis, Oxford: Oxford University press, pp. 302-441, 1999.
- C-27 Hanemann, W. Michael. "The Economic Theory of WTP and WTA." In *Valuing the Environment Preferences: Theory and Practice of the Contingent Valuation Method in the US, EC and Developing Countries*, edited by Ian Bateman and Ken Willis, Oxford: Oxford University Press, 1999.
- C-28 Hanemann, W. Michael. "Welfare Analysis with Discrete Choice Models." In *Valuing Recreation and the Environment: Revealed Preference Methods in Theory and Practices*, edited by Cathy Kling and Joe Herriges. Cheltenham, U.K.: Edward Elgar, 1999.
- C-29 Cicia G., W. M. Hanemann and C. Tagliafierro, "La stima del danno ambientale derivante da attività estrattive a cielo aperto" (The valuation of environmental damage deriving from quarry activities) (in Italian) in T. Tempesta and F. Marangon (eds.) *La Valutazione dei Beni Ambientali Come Supporto Alle Decisioni Pubbliche* Udine: Editrice Universitaria Udinese, 2001.
- C-30 Chapman, D. J. and M. Hanemann, "Environmental Damages in Court: the American Trader Case" in Anthony Heyes (editor) *The Law and Economics of the Environment* Edward Elgar, 2001.
- C-31 Li, Chuan-Zhong, Karl-Gustaf Lofgren and W. Michael Hanemann, "Real versus Hypothetical Willingness to Accept.: the Bishop and Heberlein Model Revisited", in Bengt Kristrom, Partha Dasgupta and Karl-Gustaf Lofgren (eds) *Economic Theory for the Environment: Essays in Honour of Karl-Goran Maler*, Edward Elgar 2002.
- C-32 Hanemann, W. Michael, "Consumer Demand with Several Linear Constraints: A Global Analysis," in *Contributions in Environmental Economics in Honour of Karl-Gustaf Lofgren*, Thomas Aronson and Runar Brannlund (eds.) (in press).
- C-33 Mohn Craig and W. Michael Hanemann "Caught in a Corner: Using the Kuhn Tucker Conditions to Value Montana Sportfishing," in *Essays in Honor of Gardner Brown*, Robert Halvorsen, David Layton and Richard Parks (eds), Edward Elgar (in press)
- C-34 Carson, Richard T., and W. Michael Hanemann, "Contingent Valuation" in Karl-Goran Maler and Jeffrey R. Vincent (eds) *Handbook of Environmental Economics*, Amsterdam: North-Holland (in press)

Books and Monographs

- E-1 Lake, Elizabeth, W. Michael Hanemann, and Sharon Oster. *Who Pays for Clean Water? The Distribution of Water Pollution Control Costs*. Boulder, Colorado: Westview Press, 1979.
- E-2 Bockstael, Nancy E., W. Michael Hanemann, and Ivar Strand. *Measuring the Benefits of Water Quality Improvements Using Recreation Demand Models*. Washington, D. C.: U. S. Environmental Protection Agency, October, 1986.

- E-3 Wegge, Thomas C., W. Michael Hanemann, and Ivar E. Strand. *An Economic Assessment of Marine Recreational Fishing in Southern California*. U. S. NOAA, National Marine Fisheries Service Technical Memorandum, NMFS-SWR-015, 1986.
- E-4 Fisher, Anthony, W. Michael Hanemann, John Harte, Alexander Horne, Gregory Ellis, and David Von Hippel. *Economic Valuation of Aquatic Ecosystems*. Prepared for the U. S. Environmental Protection Agency. Berkeley: University of California, October, 1986.
- E-5 Hanemann, Michael, Erik Lichtenberg, David Zilberman, David Chapman, Lloyd Dixon, Greg Ellis, and Janne Hukkinen. "Economic Implications of Regulating Agricultural Drainage to the San Joaquin River." *Regulation of Agricultural Drainage to the San Joaquin River*. SWRCB Order No. W.Q. 85-1, Technical Committee Report. Appendix G (two vols.). Sacramento, California: State Water Resources Control Board, August, 1987, 443p.
- E-6 Strong, David, W. Michael Hanemann, and L. Tim Wallace. "Private and Public Sector Economic Impacts Resulting from Regulation of Agricultural Drainage to the San Joaquin River." *Regulation of Agricultural Drainage to the San Joaquin River*. SWRCB Order No. W.Q. 85-1, Technical Committee Report. Appendix J, Indirect and Induced Economic Impacts. Sacramento, California: State Water Resources Control Board, August, 1987, 207p.
- E-7 Committee to Review the Glen Canyon Environmental Studies. *The Canyons of the Colorado: A Review of the Glen Canyon Environmental Studies*. Washington, D.C.: National Academy Press, 1987. 203p.
- E-8 Hanemann, W. Michael, Thomas C. Wegge, and Ivar E. Strand. *Development and Application of a Predictive Model to Analyze the Economic Effects of Species Availability*. U.S. NOAA National Marine Fisheries Service Administrative Report SWR-89-02, June, 1989.
- E-9 Carson, Richard T., Robert C. Mitchell, W. Michael Hanemann, Raymond J. Kopp, Stanley Presser, and Paul A. Ruud. *A Contingent Valuation Study of Lost Passive Use Values Resulting from the Exxon Valdez Oil Spill*. A report to the Attorney General of the State of Alaska. November 10, 1992.
- E-10 Carson, Richard T., W. Michael Hanemann, Raymond J. Kopp, Jon A. Krosnick, Robert C. Mitchell, Stanley Presser, Paul A. Ruud, V. Kerry Smith. *Prospective Interim Lost Use Value Due to DDT and PCB Contamination in the Southern California Bight*. La Jolla, CA: Natural Resource Damage Assessment, Inc., September 30, 1994.
- E-11 Mitchell, David L., and W. Michael Hanemann. *Setting Urban Water Rates for Efficiency and Conservation: A Discussion of Issues*. Sacramento, CA: California Urban Water Conservation Council, October 1994.
- E-12 Carson, Richard T., Michael B. Conaway, W. Michael Hanemann, Jon A. Krosnick, Kerry M. Martin, Donald R. McCubbin, Robert Cameron Mitchell, and Stanley Presser. *The Value of Preventing Oil Spill Injuries to Natural Resources Along California's Central Coast*. La Jolla, CA: Natural Resource Damage Assessment, Inc., March 1996.

- E-13 Pekelney, David M., Thomas W. Chesnutt, and W. Michael Hanemann. *Guidelines to Conduct Cost-Effectiveness Analysis of Best Management Practices for Urban Water Conservation*. Sacramento CA: California Urban Water Conservation Council, September, 1996.
- E-14 Chesnutt, Thomas, W., Janice A. Beecher, Patrick C. Mann, Don M. Clark, W. Michael Hanemann, and George A. Raftelis. *Designing, Evaluating and Implementing Conservation Rate Structures: A Handbook*. Sacramento CA: California Urban Water Conservation Council, July, 1997.
- E-15 Committee on Management of Wolf and Bear Populations in Alaska. *Wolves, Bears, and Their Prey in Alaska: Biological and Social Challenges in Wildlife Management*. Washington, D.C.: National Academy Press, 1997. 207p.
- E-16 Baumann, Duane, John Boland, and W. Michael Hanemann (eds.) *Urban Water Demand Management and Planning*. New York: McGraw Hill, 1998.
- E-17 Ian Bateman, Richard T. Carson, Brett Day, Michael Hanemann, Nick Hanley, Brett Day, Michael Jones-Lee, Graham Loomes, Susana Mourato, Ece Ozdemiroglu, David Pearce, Robert Sugden and John Swanson, *Economic Valuation with Stated Preference Techniques: A Manual*. Edward Elgar, 2002.

Papers Submitted for Publication

Schaeffer, Eric M., Jon A. Krosnick, Gary E. Langer, Daniel M. Merkle, Allyson L. Holbrook and W. Michael Hanemann, "Comparing the Quality of Data Obtained by Minimally Balanced and Fully Balanced Attitude and Knowledge Questions," May 2003.

Fisher, A., U. Narain and M. Hanemann, 2004. "The Temporal Resolution of Uncertainty and the Irreversibility Effect," under review, *International Economic Review*.

Olmstead, Sheila M., W. Michael Hanemann, and Robert N. Stavins, "Do Consumers React to the Shape of the Supply Curve?" under review *American Economic Review*

Hoffmann, Sandra A. and W. Michael Hanemann, "Torts and the Protection of 'Legally Recognized Interests'" under review *Journal of Law and Economics*

Albiac, J. M. Hanemann, J. Calatrava, and J. Uche. "Evaluating Alternatives to the Spanish National Hydrological Plan" to be submitted, *Natural Resources Journal*..

Working Papers

- F-1 Hanemann, W. Michael. "The Value of Lifesaving Reconsidered." Department of Agricultural and Resource Economics, Working Paper No. 113, University of California. Berkeley, August, 1979.
- F-2 _____. "Consumer's surplus without apology: another comment." Department of Agricultural

- and Resource Economics, Working Paper No. 120, University of California, November 1979.
- F-3 Hanemann, W. Michael, and Richard L. Farnsworth. "Risk Preferences vs. Perceptions in the Adoption of IPM." Department of Agricultural and Resource Economics, Working Paper No. 81, University of California. Berkeley, March, 1980.
- F-4 Hanemann, W. Michael. "A qualitative-quantitative model of consumer choice with an application to recreation demand." Department of Agricultural and Resource Economics, Working Paper No. 156, University of California, Berkeley, September, 1980.
- F-5 Hanemann, W. Michael. "Quality Changes, Consumer's Surplus, and Hedonic Price Indices." Department of Agricultural and Resource Economics, Working Paper No. 116, University of California. Berkeley, November, 1980.
- F-6 _____. "Water Quality and Recreation Demand." Department of Agricultural and Resource Economics, Working Paper No. 164, University of California. Berkeley, March, 1981.
- F-7 _____. "Applied welfare analysis with quantal choice models." Department of Agricultural and Resource Economics, Working Paper No.173, University of California, Berkeley, June, 1981.
- F-8 Hanemann, W. Michael, and Yacov Tsur. "Econometric Models of Discrete/Continuous Supply Decisions Under Uncertainty." Department of Agricultural and Resource Economics, Working Paper No. 195, University of California. Berkeley, March, 1982.
- F-9 _____. "Econometric models of discrete/continuous agricultural supply decisions." Department of Agricultural and Resource Economics, Working Paper No. 237, University of California, Berkeley, August, 1982.
- F-10 Hanemann, W. Michael. "Applied Welfare Analysis with Qualitative Response Models." Department of Agricultural and Resource Economics, Working Paper No. 241, University of California. Berkeley, October, 1982.
- F-11 _____. "Welfare analysis based on systems of partial demand functions." Department of Agricultural and Resource Economics, Working Paper No. 243, University of California, Berkeley, November, 1982.
- F-12 _____. "Some Further Results on Exact Consumer's Surplus." Department of Agricultural and Resource Economics, Working Paper No. 190, University of California. Berkeley, December, 1982.
- F-13 _____. "Econometric Models of the Demand for Quality-Differentiated Goods." Department of Agricultural and Resource Economics, Working Paper No. 272, University of California. Berkeley, July, 1983.
- F-14 _____. "A Critique of 'Identifying Structural Equations Through the Nonlinearity of a Single Price Gradient' and 'Identifying Structural Equations with Single Market Data' by Rob Mendelsohn." Department of Agricultural and Resource Economics, Working Paper No. 300, University of California. Berkeley, June, 1984.

- F-15 Hanemann, W. Michael, Yacov Tsur, and David Zilberman. "Pesticide Usage and the Choice of Pest Control: A Switching Regression Analysis." Department of Agricultural and Resource Economics, Working Paper No. 301, University of California. Berkeley, June, 1984.
- F-16 Hanemann, W. Michael. "On Reconciling Different Concepts of Option Value." Department of Agricultural and Resource Economics, Working Paper No. 295, University of California. Berkeley, July, 1984.
- F-17 LaFrance, Jeffrey T., and W. Michael Hanemann. "The Integration of Some Common Demand Systems." Department of Agricultural and Resource Economics, Working Paper No. 320, University of California. Berkeley, July, 1984.
- F-18 Hanemann, W. Michael. "Introducing Site Quality Into Recreation Demand Functions." Department of Agricultural and Resource Economics, Working Paper No. 338, University of California. Berkeley, November, 1984.
- F-19 _____. "Multiple Site Demand Models. Part I: Some Preliminary Considerations." Department of Agricultural and Resource Economics, Working Paper No. 336, University of California. Berkeley, November, 1984.
- F-20 _____. "Multiple Site Demand Models. Part II: Review of Existing Models and Development of New Models." Department of Agricultural and Resource Economics, Working Paper No. 337, University of California. Berkeley, November, 1984.
- F-21 _____. "Specification of the individual's demand function: the treatment of time." Department of Agricultural and Resource Economics, Working Paper No. 316, University of California, Berkeley, November, 1984.
- F-23 Carson, Richard T., W. Michael Hanemann, and Robert Cameron Mitchell. "The Use of Simulated Political Markets to Value Public Goods." Economics Department, University of California. San Diego, October, 1986.
- F-24 Hanemann, W. Michael. "Institutional Problems of Production Agriculture Related to the Regulatory Process." Department of Agricultural and Resource Economics, University of California. Berkeley, March, 1987.
- F-25 Hanemann, W. Michael. "Three Approaches to Defining 'Existence' or 'Non-Use' Value Under Certainty. Department of Agricultural and Resource Economics, Working Paper No. 691, University of California, Berkeley. July, 1988.
- F-26 Hanemann, W. Michael, David Chapman. "Beyond Contingent Valuation: Deriving Environmental Benefits from Hypothetical Data." Department of Agricultural and Resource Economics, Working Paper, University of California. Berkeley, October, 1988.
- F-27 Hanemann, W. Michael, Erik Lichtenberg, and David Zilberman. "Conservation versus Cleanup in Agricultural Drainage Control." Department of Agricultural and Resource Economics, University of Maryland, July, 1989. (Revised Sept., 1989)
- F-28 Keeler, A., Fisher, A., and W. Michael Hanemann. "The San Francisco Bay/Delta Chinook

- Salmon Fishery: A Review and Analysis of Recent Trends." Department of Agricultural and Resource Economics, Working Paper No. 501, University of California. Berkeley. July, 1989.
- F-29 Hanemann, Michael, Erik Lichtenberg, and David Zilberman. "Conservation versus Cleanup in Agricultural Drainage Control." Department of Agricultural and Resource Economics, University of Maryland, September, 1989.
- F-30 Dale, Larry, and W. Michael Hanemann. "Transactions Costs and the Metering of Urban Water Use in California." Department of Agricultural and Resource Economics, University of California. Berkeley, June, 1990.
- F-31 Loomis, J., J. Hoehn, and W. Michael Hanemann. "Testing the Fallacy of Independent Valuation and Summation in Multi-Part Policies: An Empirical Test of Whether 'Too Many Proposals Pass the Benefit-Cost Test'." Department of Environmental Studies, University of California, Davis, August, 1990.
- F-32 Carson, Richard T., Nicholas E. Flores, and W. Michael Hanemann. "On the Nature of Compensable Value in a Natural Resource Damage Assessment." Department of Agricultural and Resource Economics, Working Paper, University of California. Berkeley, January, 1992.
- F-33 Carson, Richard, Flores, N. E., and Hanemann, W. M. "On the Creation and Destruction of Public Goods: The Matter of Sequencing." Department of Economics, University of California, San Diego, April, 1992.
- F-34 Carson, Richard T., M.B. Conaway, W.M. Hanemann, R.J. Kopp, K. Martin, R.C. Mitchell, S. Presser, and P.A. Ruud. "Valuing Winter Visibility Improvement in the Grand Canyon, Natural Resource Damage Assessment, Inc.: La Jolla, California. June, 1992.
- F-35 Hanemann, W. Michael, David Chapman, and Barbara Kanninen. "Non-Market Valuation Using Contingent Behavior: Model Specification and Consistency Tests." Department of Agricultural and Resource Economics, Working Paper, University of California. Berkeley. January 1993.
- F-36 Hanemann, W. Michael. "Projected M&I Demand in the LADWP Service Area 1990-2010." Department of Agricultural and Resource Economics, Working Paper No. 644, University of California, Berkeley. February, 1993.
- F-37 Hanemann, W. Michael. "Consumer Demand with Multiple Linear Constraints: A Global Analysis." Department of Agricultural and Resource Economics, University of California. Berkeley, March, 1993.
- F-38 Kriström, Bengt, Hans Nyquist, and W. Michael Hanemann. "Dichotomous Choice Contingent Valuation Experiment: A Mixed Distribution Approach." Working Paper, Department of Economics, University of Umea, Sweden. June, 1993.
- F-39 Chapman, David, and W. Michael Hanemann. "Correlated Discrete-Response Contingent Valuation" Department of Agricultural and Resource Economics, Working Paper, University of California. Berkeley, July, 1993.

- F-40 Chesnutt, Thomas W., Anil Bamezai, and W. Michael Hanemann. "Revenue Instability Induced by Conservation Rate Structures: An Empirical Investigation of Coping Strategies." Department of Agricultural and Resource Economics, Working Paper No. 695, University of California, Berkeley. November, 1993.
- F-41 Fisher, Anthony C., and W. Michael Hanemann. "What's Wrong with Current Estimates of Climate Change Damages?" Department of Agricultural and Resource Economics, Working Paper, University of California. Berkeley. August, 1994.
- F-42 Cooper, Joseph C., and W. Michael Hanemann. "Referendum Contingent Valuation: How Many Bounds Are Enough?" USDA Economic Research Service, Food and Consumer Economics Division, Working Paper. May, 1995.
- F-43 Hanemann, W. Michael and Andrew Keeler. "Economic Analysis in Policy Evaluation, Damage Assessment and Compensation: A Comparison of Approaches." Department of Agricultural and Resource Economics, Working Paper No. 766, University of California, Berkeley. June, 1995.
- F-44 Hanemann, W. Michael. "Notes on Discounting Environmental Outcomes." Department of Agricultural and Resource Economics, Working Paper, University of California. Berkeley, September, 1995.
- F-45 Mohn, C., W. Michael Hanemann, Michael Ward, "Caught in a Corner: Using the Kuhn-Tucker Conditions to Value Montana Sportfishing" June 2000.
- F-46 Busch, Christopher B. and W. Michael Hanemann, "Analyzing the Impact of Beach Closures, Intersite Substitution and Intertemporal Substitution via a Model of Attendance at Five Orange County Beaches" Working Paper No. 965, University of California, Berkeley, July, 2001.
- F-47 Cavanagh, Sheila M., W. Michael Hanemann, and Robert N. Stavins "Muffled Price Signals: Household Water Demand Under Increasing-Block Prices" Fondazione Eni Enrico Mattei Working Paper 40. February, 2002.
- F-48 Schlenker, W., A. Hanemann,, and A.C. Fisher, "The Impact of Global Warming on U.S. Agriculture: An Econometric Analysis," Department of Agricultural and Resource Economics Working Paper 936, University of California, Berkeley, October 9, 2002.
- F-49 W. Michael Hanemann, "The Central Arizona Project", Department of Agricultural and Resource Economics Working Paper No. 937, University of California, Berkeley, October 2002.
- F-50 Mohn, Craig, Michael Hanemann, Linwood Pendleton, and David Layton, "Shifting Sands: A Preliminary Exploration of Seasonal Variation in Preferences for Beaches," Department of Agricultural and Resource Economics Working Paper No. 966, University of California, Berkeley, January 2003.
- F-51 Schlenker, W., A. Fisher and W.M. Hanemann, "Will U.S. Agriculture Really Benefit from Global Warming? Accounting for Irrigation in the Hedonic Approach," Department of Agricultural and Resource Economics Working Paper No. 941, University of California, Berkeley, October 2003.
- F-50 Kuriyama, Koichi, W. Michael Hanemann, and Linwood Pendleton, "Approximation

Approaches to Probabilistic Choice Set Models for Large Choice Set Data," Department of Agricultural and Resource Economics Working Paper No. 967, University of California, Berkeley, May 2003.

Presentations

"Changing Ecosystems: The Challenge of Economic Valuation." Invited paper presented at the American Association for the Advancement of Science Annual Meeting, Atlanta, February 18, 1995.

"Effluent Taxes and the Promotion of Conservation." Invited paper presented at the Murray S. Johnson Conference on Environmental Economics, University of Texas, Austin, April 29-30, 1995.

"The Contingent Valuation Method." Invited presentation, Conference on Natural Resource Damages: Latest Developments and Future Focus, San Francisco, CA, May 5, 1995.

Workshop on the Microeconomics of Water (co-presented with Robert Stavins), Commission Nacional del Agua, Mexico City, May 18, 1995.

"A Clear Water Policy for the Delta or Just More Mucking About?" Invited presentation to the Sacramento Economics Roundtable, Sacramento, Calif., May 24, 1995.

"Economic Analysis in Policy Evaluation, Damage Assessment and Compensation: A Comparison of Approaches" (with Andrew Keeler). Keynote speech, Association of Environmental and Resource Economics Workshop on Economics of Takings, Annapolis, June 5, 1995.

"Can We Value the Natural Environment in Monetary Terms?" Keynote speech, Conference on Social Sciences and the Environment, Goteborg, Sweden, June 13-15, 1995.

"Environmental Economics as though People Were Human Beings." Keynote speech, European Association of Environmental and Resource Economics, Annual Meeting, Umea, Sweden, June 19, 1995.

"Nonmarket Valuation under Preference Uncertainty: Econometric Models and Estimation" (co-authored with Bengt Kriström and Chuan-Zhong Li). Paper presented at the Annual Meeting of the European Association of Environmental and Resource Economics, Umea, Sweden, June 20, 1995.

"The Travel Cost Method." Invited lecture, University of Barcelona Summer School on Environmental Economics, Barcelona, June 26-28, 1995.

"The Use of Contingent Valuation for Natural Resource Damages." Invited presentation, Northwest Natural Resource Damages Conference, Bellevue WA, September 22, 1995.

"Notes on Discounting Environmental Outcomes." Invited presentation, NOAA Workshop on Natural Resource Damages, Washington, DC, September 25, 1995.

"Ratemaking Strategies for Demand and Revenue Management." (with David Mitchell). Paper presented at American Water Works Association, California-Nevada Section Fall Conference, San Jose, October 18, 1995.

"The Political Economy of Setting Water Tariffs in Los Angeles and Mexico City" and "The Use of Water

Markets to Establish Raw Water Prices—the California Experience." Invited presentations given at World Bank Seminar on Water and Sanitation Pricing, Washington, D.C., October 30-31, 1995.

"Why Water is Different: A Revisionist View of Appropriative Rights and Irrigation Institutions." Paper presented at the 40th Annual Conference of the Australian Agricultural & Resource Economics Society, Melbourne Australia, February 11-12, 1996.

"The Methodology of Modeling." Invited lecture, Bay/Delta Modeling Forum Annual Workshop, Asilomar CA, February 27-28, 1996.

"Interaction Between Survey Reliability and Econometric Estimation Strategy for Travel Cost Models," (co-authored with Craig Mohn). Paper presented at the W-133 Annual Meeting, Jeckyll Island, GA March 13-15, 1996.

"The Theoretical Foundations of Resource Compensation" (co-authored with Carol Jones). Paper presented at the W-133 Annual Meeting, Jeckyll Island, GA March 13-15, 1996.

"Placing an Economic Value on Human Health: What It Means and How It's Done." Invited lecture, Center for Risk Analysis, Harvard School of Public Health, Boston MA, April 19, 1996.

"How Do People Have Preferences for the Environment?" Distinguished Lecture in Environmental Policy, School of Public Policy, Georgia Institute of Technology, Atlanta GA, April 25, 1996.

"Revisiting the Disparity Between WTP and WTA: Explanations from Economics and Survey Research." Invited seminar, Department of Economics, Georgia State University, April 26, 1996; Department of Economics, University of New Mexico, May 10, 1996; Department of Economics, Duke University, November 12, 1996; Department of Economics, UC Santa Barbara, January 12, 1997.

"Valuation of Nonmarket Commodities Using Nonmarket Valuation Techniques" Lecture course sponsored by Norwegian Research Council, taught at University of Oslo, Norway, May 20-24, 1996.

Invited participant, Workshop on Ecology and Economics, National Center for Ecological Analysis and Synthesis, Santa Barbara CA, May 30-31, 1996.

"Non-Market Valuation Using Contingent Behavior: Model Specification and Consistency Tests" (with David Chapman). Paper presented at the 1996 AERE Workshop on Combining Stated Preference Data and Revealed preference Data to estimate the Demand for and Benefits from Environmental Amenities, Tahoe City CA, June 2-4, 1996.

Invited participant, Panel on Current Issues in Discrete Choice Models, Third International Choice Symposium, Arden Conference Center, Harriman, NY, June 14-17, 1996.

Invited participant, American Water Works Association Research Foundation Workshop on Total Water Management, Seattle, WA, August 18-20, 1996.

"Designing Water Tariffs." Invited presentation given at World Bank Seminar on Water and Sanitation Pricing, Washington, D.C., February 18-19, 1997.

"Contingent Valuation." Lecture course sponsored by the Italian National Research Council taught at the Southern Italy Center of Agricultural Economics, Naples, January 19-23, 1998.

Invited participant, Advanced Training Workshop in Multi-level Modeling of Environmental Economics, London, England, March 18-19, 1998.

“Dispute Resolution in Natural Resources and Environmental Problems: What have We Learned?” Invited paper presented at the Conference on Water and Food Security in the Middle East, Nicosia, Cyprus, April 20-23, 1998.

“Why Environmental Management is Difficult.” Invited seminar, Nicholas School of the Environment, Duke University, May 26, 1998.

“Determining the Validity of Attribute Based Stated Choice Methods” (co-authored with Joffrey Swait). Invited paper presented at NOAA Workshop on Application of Stated Preference Methods to Resource Compensation, Washington, DC, June 1-2, 1998.

“Economic Methods for Measuring Environmental Damages from War.” Invited paper presented at the First International Conference on Addressing the Environmental Consequences of War, Washington, DC June 10-12, 1998.

“The Impact of Global Warming on Agriculture: Rethinking the Ricardian Approach” (co-author with Anthony Fisher). Paper presented at the First World Congress of Environmental and Resource Economics, Venice, Italy, June 25-27, 1998.

“Nonparametric Modeling of Travel Cost Data” (co-author with David Chapman and Michael Ward). Paper presented at the First World Congress of Environmental and Resource Economics, Venice, Italy, June 25-27, 1998.

Invited panelist, Symposium on The Problems of Valuation in LDC’s; Symposium on Preference Valuation and Environmental Valuation; and Symposium on Market-Based Instruments for Environmental Protection. First World Congress of Environmental and Resource Economics, Venice, Italy, June 25-27, 1998.

Invited participant, Panel on Combining Sources of Information about Preferences and Choices to Enhance Understanding of Process and Inform Model Development, Fourth Invitational Choice Symposium, Jouy-en-Josas, France, July 7-10, 1998.

Invited participant, National Bureau of Economic Research, Summer Institute Public Economics Workshop on Public Policy and the Environment, Cambridge MA, August 3-4, 1998.

“Willingness to Pay versus Willingness to Accept: Some Further Results” Invited seminar, Economics Department, University of Southern California, Los Angeles, September 18, 1998.

“Setting Wholesale Prices for Urban and Agricultural Water in Mexico” Invited presentation, National Water Commission Workshop on the Pricing of Water, Mexico City, September 24-25, 1998.

“Pricing Strategies for Urban Water” Invited Presentation, Workshop on the Pricing of Water and Sewer Services, World Bank, Washington, DC October 12-13, 1998.

“What Have We Learned From CV Since 1989?” Invited presentation, Workshop on Alternatives to Traditional CVM in Environmental Valuation, Vanderbilt University, October 15-16, 1998

- “Assessing Natural Resource Damages for Lost Beach Recreation,” Invited seminar presentation, Department of Applied Economics and Statistics, University of Nevada, Reno NV, October 20, 1998.
- “Contingent Valuation” Invited course of lectures to Italian graduate students in environmental economics, University of Naples, Portici, Naples, Nov 9-13, 1998.
- “Lectures on Environmental Economics” Invited course of lectures to Dutch Ph. D Economics Students, Netherlands Networks of Economics, Rotterdam, December 7-11, 1998.
- “Torts Law and Property Rights: The Role of Property Rights in Determining Torts Compensation for Environmental and Health Risk,” co-authored with Sandra Hoffman, W-133 Annual Meeting,, Tucson AZ, February 24-26, 1999.
- “Non-Market Valuation and Natural resources Damages” invited presentation at 20th Annual Public Land Law Conference, “Exploring Natural Resource Damages Under CERCLA and Other Federal Law,” University of Montana School of Law, Missoula, MT March 4-5, 1999.
- “Using Contingent Valuation for Outcome Measurement in the Non-Profit Center” Invited presentation, Symposium on Contracting, Outcome Measurement and Evaluation Techniques, Institute for the Study of Government and the nonprofit Sector, Indiana University, April 16, 1999.
- “The Economics of Urban Water” Invited presentation, 4th Meeting of METRON Project Partners, School of Geography, Oxford University, June 7-8, 1999
- “Strengths and Weaknesses of Costing Methods for Impacts of Climate Change” Invited paper presented at IPCC Expert Meeting on Costing Issues, Tokyo, Japan, June 29-July 1, 1999.
- “Nonmarket Valuation Using Revealed Preference” Two invited lectures, US Department of Agriculture, Economic Research Service, Washington, DC July 21-22, 1999.
- “Intertemporal Consistency and Environmental Policy” co-authored with Sandra Hoffman, presented at Environmental and Resource Economics Workshop, University of Colorado, Boulder, July 30, 1999.
- Invited participant, National Bureau of Economic Research, Summer Institute Public Economics Workshop on Public Policy and the Environment, Cambridge MA, August 2-3, 1999.
- Keynote Speaker, Global Water Partnership Seminar on Water Pricing, 9th Stocholm Water Symposium, August 12, 1999.
- “Valuing the Environment: A Review of the State of the Art in Contingent Valuation” Invited Robinson Seminar, Department of Agricultural, Resource and Managerial Econics, Cornell University, October 4, 1999.
- Invited participant, Working Group on Fresh Water and Environmental Change - The Ecological Consequences of Altered Hydrological Regimes, National Center for Ecological Analysis, Santa Barbara, Oct 18-21, 1999.
- “Water Resources and Non-Market Valuation in the USA: The Pervasive Influence of the Public Trust Doctrine” Invited paper presented at the Chartered Institution of Water and Environmental Management conference on Valuing the Environment: Beyond 2000, Royal United Services Institute, London, 23 November 1999.
- “One-and-One-Half Bound Dichotomous Choice Contingent Valuation“ (co-authored with Joseph Cooper and Giovanni Signorello) Invited paper presented at the Conference on the Theory and

Application of Environmental Valuation, Kobe University, Japan, January 22-23, 2000.

Invited participant, California Senate Annual Fiscal Retreat, February 4, 2000.

“The Impact of Quality Variation on Southern California Beach recreation” co-authored with Michael Ward, John Winkler, Linwood Pendleton and David Layton, presented at W133 Annual Research Meeting, Sheraton Kauai Resort, Hawaii, February 28, 2000.

“Closed vs Open Ended Approaches to CV: Explaining Why results are Different” co-authored with Jon Krosnick and Timothy Beatty, presented at W133 Annual Research Meeting, Sheraton Kauai Resort, Hawaii, February 29, 2000.

Invited participant, Workshop on Implementing the Kyoto Protocol, Institute on Global Conflict and Cooperation, UC San Diego, April 28-29, 2000.

“Closed vs Open Ended Approaches to CV: Explaining Why results are Different” co-authored with Jon Krosnick and Timothy Beatty, presented at Fifth Occasional Workshop on Environmental and Resource Economics, UC Santa Barbara, May 5-6, 2000.

“Caught in a Corner: Using the Kuhn-Tucker Condition to Value Montana Sportfishing” co-authored with Craig Mohn and Michael Ward, presented at the EAERE Annual Meeting, Rethymnon, Crete June 29-July 2, 2000.

Invited commentator, Pew Center Workshop on the Environmental Impacts of Climate Change, Washington DC, July 18-19, 2000.

“Tort Law and Non-Monetary Loss: Insurance versus Property Rights Enforcement and Compensation for Environmental Damage” (co-authored with Sandra Hoffman) presented at the Annual Meeting of the American Agricultural Economics Association, Tampa, FL, July 30 – August 2, 2000.

Invited participant, National Bureau of Economic Research, Summer Institute Public Economics Workshop on Public Policy and the Environment, Cambridge MA, August 7-8, 2000

“Disaggregate Choice Analysis: Stretching the Neo-Classical Paradigm” Invited paper presented at the Conference on Measuring Welfare and Well-Being in Honor of Professor B. M. S. van Praag, Department of Economics, University of Amsterdam, Holland, August 25-26, 2000.

“What Have We Learned Since the NOAA Panel on CV?” Invited presentation, EPA Workshop on Stated Preference: What Do We Know ? Where Do We Go? Washington, DC October 12-13, 2000.

“Using Contingent Valuation for Valuing Environmental Improvements” Presented at the Annual Meeting of the Association of APPAM, Seattle, November 4, 2000.

“Pricing as a Tool for Demand Management: The Experience in the US” invited presentation, International Workshop on Water for the City, National Technical University, Athens, Greece, November 28, 2000.

“The Economic Value of Beach Recreation in Southern California” Invited paper presented at Conference on Orange County’s Coastal crisis, Cal State Fullerton, January 16, 2001.

“Economic Value of Improving Coastal Water Quality” Invited Presentation, Second Annual Ballnoa Wetlands Symposium, Loyola Marymount University, Los Angeles, CA May 18, 2001.

Co-organizer, Workshop on Context Dependence and Aggregation in Disaggregate Choice Analysis, UC Berkeley Invitational Choice Symposium, Asilomar Conference Center, June 10-15, 2001

“Lectures on Non-market Valuation” Invited course of lectures, 12th Jerusalem Summer School in Economic Theory, Program on Environmental & Resource Economics, Hebrew University, Jerusalem, June 13-21, 2001.

"Uncertainty, Learning and the Irreversibility Effect" seminar paper presented at Department of Agricultural and Resource Economics, Hebrew University, Rehovot, June 22, 2001.

“The impact of global warming on U.S. agriculture: an econometric analysis” (co-authored With Wolfram Schlenker and Tony Fisher), presented at 11th Annual EAERE Conference, Southampton, England, June 28-30, 2001.

“The Revealed Preference Approach to Nonmarket Valuation” Invited lecture series, EAERE Summer School on Nonmarket Valuation, Venice, Italy, July 2 – 7, 2001.

Invited participant, “Round Table on Water in Mexico,” organized by the Institute of the Americas, Mexico City, July 12-13, 2001.

Invited participant, National Bureau of Economic Research, Summer Institute Public Economics Workshop on Public Policy and the Environment, Cambridge MA, July 30-31, 2001

Invited commentator, Camp Resources IX, Wilmington NC, August 16-17, 2001.

“Some Lessons from Water Markets in California: Informal Markets, Incomplete Property Rights and Third-Party Effects” invited paper presented at Conference on Linking Industry, Local and Regional, National and International Emission Trading Schemes, Fondazione Eni Enrico Mattei, Venice Italy, December 3-4, 2001.

“Muffled Price Signals: Household Water Demand Under Increasing-block Prices” (coauthored with Sheila M. Olmstead and Robert N. Stavins) presented at ASSA Meetings, Atlanta, Jan 5, 2002.

"The Costs and Benefits of Adaptive Management" Invited presentation, Conference on Ocean Law and Fisheries Management/Science/Economics, Boalt School of Law, UC Berkeley, April 6, 2002.

“The irreversibility effect: necessary and sufficient conditions” (co-authored with Urvashi Narain and Anthony Fisher), presented at Conference on Risk and Uncertainty in Environmental and Resource Economics, Wageningen, Holland, June, 5-7 2002; also presented at the Second World Congress of Environmental and Resource Economists, Monterey CA, June 27, 2002.

Invited lecturer, Workshop on Water Pricing and Sanitation, Department of Urban Studies and Planning, Massachusetts Institute of Technology, June 12-14, 2002

“Correcting Bias From a Partial Increase in Precision in Cost Construction in Travel Cost Modeling” (co-authored with Craig Mohn, Linwood H Pendleton and David Layton) presented at the Second World Congress of Environmental and Resource Economists, Monterey CA, June 24, 2002.

“Fishery Management Under Multiple Uncertainty” (co-authored with Gautam Sethi, Christopher Costello and Anthony Fisher” presented at the Second World Congress of Environmental and Resource Economists, Monterey CA, June 25, 2002.

“An Econometric Analysis Of Climate Change Impacts On U.S. Agriculture” (co-authored with Wolfram Schlenker and Anthony Fisher) presented at the Second World Congress of Environmental and Resource Economists, Monterey CA, June 26, 2002.

“The Economic Value of Beach Use” Invited presentation, meeting of the National Academy of Sciences Ocean Studies Board, Corvallis, OR, July 11, 2002.

Invited commentator, Environmental and Resource Economics Workshop, Department of Economics, University of Colorado, Boulder, July 15-16, 2002

“The Impact of Global Warming on US Agriculture: An Econometric Analysis” (co-authored with Wolfram Schlenker and Anthony Fisher). Presented at National Bureau of Economic Research, Summer Institute Public Economics Workshop on Public Policy and the Environment, Cambridge MA, July 29-30, 2002. Presented at National Bureau of Economic Research, Summer Institute Public Economics Workshop on Public Policy and the Environment, Cambridge MA, August 7-8, 2000. Presented as invited keynote speech, Annual Meeting of Chilean Economics Association, Punta de Tralca, Chile September 26, 2002. Presented as invited paper at Conference on Empirical Economics Models of Pricing Valuation and Resource Allocation, Economics Research Center, University of Chicago, October 4-5, 2002. Presented at seminar at Andrew Young School of Policy Studies, Georgia State University, October 18, 2002. Presented at seminar at the Department of Economics, Western Michigan University, December 3, 2002. Presented at Environmental Economics Seminar, Department of Economics, Harvard University, December 11, 2002. Presented as invited paper at the American Meteorological Society Annual Meeting, Session on Impacts of Water Variability, Long Beach, CA, February 11, 2003. Presented at seminar at the Department of Economics, University of Central Florida, February 26, 2003.

“Some Alternative Approaches to Environmental Policy” Invited lecture presented at “Executive Environmental Program: Strategic Management of Environmental Management”, Mexico City, July 29 – August 2, 2002.

Invited Participant, Asko Conference on Asko Conference, Beijer Institute, August 31 – September 2, 2002.

“The Economic Approach to Groundwater Management and Sustainability” Invited presentation, Annual Meeting and Conference, Groundwater Resources Association, Newport Beach, September 18, 2002.

“Uncertainty, Learning and the Irreversibility Effect” Invited lecture, Department of Economics, University of Concepcion, Chile, September 25, 2002.

“The Economic Value of Beach Recreation in Southern California” (co-authored with Linwood Pendleton). Paper presented at 2002 Conference on California and the World Ocean, Santa Barbara, October 29, 2002.

“Ten Years Later: Contingent Valuation After the NOA Panel Report” Invited lecture, Resources for the Future, Washington, DC November 20, 2002.

“The Economics of Asthma” (co-authored with Sylvia Brandt) presented at the Annual Meeting of the Southern Economics Association, New Orleans, November 24, 2002.

“Contingent Valuation: Mapping Disaggregated Preferences” Invited Werner-Sichel Lecture, University of Western Michigan, Kalamazoo, December 4, 2002.

“Market Benefits/Impacts of Climate Change” Invited paper presented at OECD Workshop on the Benefits of Climate Policy: Improving Information for Policy Makers, Paris December 12-13, 2002.

“Natural Resources Damages: An Economic Perspective” presented at the University of Vigo, Spain, January 16, 2003.

Invited Panelist, Conference on Valuing Health Outcomes: An Assessment of Approaches, Resources for the Future, Inc, Washington DC February 13-14, 2003.

Invited discussant, Conference on Global Climate Change and California, California Energy Commission, Sacramento, February 2002,2003.

“Economic Value of Beach Recreation in Southern California” presentation at Coastal Economics Workshop, University of Southern California, Los Angeles, February 24, 2003.

“Urban Water Demand Management and Planning” Invited presentation, Conference on Economic Incentives and the Sustainability of Florida’s water Supply, University of Central Florida, February 27, 2003.

Invited discussant, Workshop on Equilibrium Modeling Approaches at the Boundaries of Industrial Organization, Public Economics, and Environmental Economics. Department of Economics, Stanford University, February 28 - March 1, 2003.

“Corner Solution Models of recreation Demand (co-authored with Craig Mohn) presented at Conference on New Frontiers in Natural Resource and Environmental Economics, University of Washington, Seattle, April 5 2003.

“Muffled Price Signals: Household Water Demand Under Increasing-block Prices” (coauthored with Sheila M. Olmstead and Robert N. Stavins) presented at NBER Environmental Economics Working Group Meeting, Cambridge, MA April 12, 2003.

“An Economic Assessment of the Ebro River project in Spain” Invited presentation, Conference on "Innovations in Water and Environmental Planning in Mediterranean-Climate Systems: Experiences in California and Southern Europe", Intitute of Urban & Regional Development, UC Berkeley, April 18, 2002.

Lectures on Nonmarket Valuation, OSINERG (Energy Regulatory Agency), Lima, Peru, May 15-16, 2003.

Invited participant, Water Policy Workshop on Integrated Ground and Surface Water Management, The Nature Conservancy, San Francisco, May 20, 2003.

Invited participant, Workshop on Environmental Performance and the Effectiveness of Government Regulation, UC Berkeley, Center for the Study of Law and Society, June 2, 2003.

“Economic Aspects of Tariff Regulation for Water Supply and Sanitation” Invited presentation, Conference on Tariff Regulation in the Water and Sanitary Sector of Chile: Recent Experience and Challenges, Department of Economics, University of Concepcion, Chile, June 20, 2003.

“Shifting Sands: A preliminary Exploration of Seasonal Variation in Preferences for Beaches” (co-authored with Craig Mohn, Linwood Pendleton and David Layton). Paper presented at Panelist, Round Table Conference on “Oill spill Impacts on Fisheries and Fishery Communities: The Case of the *Prestige* Oil Spill.” 12 th AERE Annual Conference, Bilbao, Spain, June 28, 2003.

Panelist, Round Table Conference on “Oil Spill Impacts on Fisheries and Fishery Communities: The Case of the *Prestige* Oil Spill.” 12 th AERE Annual Conference, Bilbao, Spain, June 29, 2003.