

## CURRICULUM VITAE

### MARK THAYER

January 2008

Department of Economics  
San Diego State University  
San Diego, Ca 92182  
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### EDUCATION

Ph.D., Economics, University of New Mexico, Albuquerque, 1979

Title of Dissertation: "Contingent Valuation Techniques for Environmental Impacts: A Case Study of Geothermal Energy"

### TEACHING POSITIONS AND RANKS HELD

Institution	Rank	Dates
San Diego State University	Department Chair	1997-07
San Diego State University	Professor	1985-Pr
University of Nevada, Las Vegas	Professor	1991-93
University of Nevada, Las Vegas	Department Chair	1991-92
San Diego State University	Department Chair	1989-91
San Diego State University	Associate Professor	1981-85
University of Missouri-Rolla	Assistant Professor	1979-80

### OTHER PERTINENT PROFESSIONAL EXPERIENCE

Member, San Diego County Board of Supervisors Science Advisory Board, March 2006 – Present.

Chair, California Board for Energy Efficiency, August 1998 – April 2000.

Member, California Board for Energy Efficiency, April 1997 – April 2000.

Research Associate, Regional Economic Research, 1982 – 1997.

Senior Economist, U.S. Environmental Protection Agency, January 1986 – August 1987.

Visiting Staff Member, Los Alamos Scientific Laboratory, September 1979 – 1983.

Research Associate, University of Wyoming, 1980 – 84.

Research Associate, University of New Mexico, October 1978 – August 1979.

Research Associate, University of Southern California, September 1977 – August 1978.

Research Assistant, University of New Mexico, September 1974 – September 1977.



## PROFESSIONAL GROWTH

### Articles in Refereed Journals

“Near Term Prospects for Solar Energy: An Economic Analysis” (with W. Schulze et al.), *Natural Resources Journal*, Volume 17, pp. 169-207, April 1977.

“Contingent Valuation Techniques for Assessing Environmental Impacts: Further Evidence,” *Journal of Environmental Economics and Management*, Volume 8, Number 1, pp. 27-44, March 1981.

“Valuing Public Goods: A Comparison of Survey and Hedonic Approaches” (with D. Brookshire, W. Schulze, and R. d’Arge), *American Economic Review*, Volume 72, Number 1, pp. 165-177, March 1982.

Reprinted in *The Economics of the Environment: An Introduction*, edited by Anil Markandya and Julie Richardson, Earthscan Publications Limited, London, 1992.

Reprinted in *Economics of the Environment*, edited by Wallace Oates, Edward Elgar Publishers, London, 1992

“An Experiment in Valuing Senior Companion Program Services” (with C. Garbacz), *Journal of Human Resources*, Volume 18, Number 1, pp. 147-153, Winter, 1983.

“The Economic Benefits of Preserving Visibility in the National Parklands of the Southwest” (with W. Schulze et al.), *Natural Resources Journal*, Volume 23, pp. 149-173, January 1983.

“A Test of the Expected Utility Model: Evidence from Earthquake Risks” (with D. Brookshire, J. Tschirhart, and W. Schulze), *Journal of Political Economy*, Volume 93, Number 2, pp. 369-389, April, 1985.

“The Robustness of Hedonic Price Estimation: Urban Air Quality” (with P. Graves, J. Murdoch, and D. Waldman), *Land Economics*, Volume 64, Number 3, pp. 220-233, August 1988.

“Hedonic Price Estimation of Variable Urban Air Quality” (with J. Murdoch), *Journal of Environmental Economics and Management*, Volume 15, Number 2, pp. 143-146, June 1988.

Reprinted in *The Economics of the Environment: An Introduction*, edited by Anil Markandya and Julie Richardson, Earthscan Publications Limited, London, 1993.

“Earthquake and Volcano Alerts: An Economic Evaluation of Risk Perception Changes” (with R. Bernknopf and D. Brookshire), *Journal of Environmental Economics and Management*, Volume 18, Number 1, pp. 35-49, January 1990.

“The Benefits of Reducing the Incidence of Non-Melanoma Cancers: A Defensive Expenditures Approach” (with J. Murdoch), *Journal of Environmental Economics and Management*, Volume 18, Number 2, pp. 107-119, March 1990.

“Urban Air Quality Improvements: A Comparison of Aggregate Health and Welfare Benefits to Hedonic Price Differentials” (with P. Brucato and J. Murdoch), *Journal of Environmental Management*, Volume 30, pp. 265-279, 1990.

“The Value of Air Quality Improvement in San Diego County,” *Regional Economic Perspective*, Volume 4, Number 1, Winter 1991.

“The Benefits of Reducing Exposure to Waste Disposal Sites: A Hedonic Housing Value Approach” (with H. Albers and M. Rahmatian), *Journal of Real Estate Research*, Volume 7, Number 3, pp. 265-282, Summer 1992.

“The Impact of Seat Belt Use on Driving Behavior” (with H. Singh), *Economic Inquiry*, Volume 30, Number 4, October 1992.

“A Spatially Autoregressive Median Voter Model of Recreation Expenditures” (with J. Murdoch and M. Rahmatian), *Public Finance Quarterly*, Volume 21, Number 3, pp. 334-350, July 1993.

“The Impact of Natural Hazards on Housing Values: The Loma Prieta Earthquake” (with J. Murdoch and H. Singh), *Journal of the American Urban and Regional Economics Association*, Volume 21, Number 3, pp. 167-184, Summer 1993.

“Risk Compensating Behavior” (with N. Daneshvary), in *The Encyclopedia of Human Behavior*, Volume 4, pp. 35-39, edited by S. Ramchandran, Academic Press, Inc., January 1994.

“An Analysis of the Housing Market Before and After the 1989 Loma Prieta Earthquake” (with C. Beron, J. Murdoch, and V. Vijberberg), *Land Economics*, Volume 73, Number 1, pp. 101-113, February 1997.

“Do Property Values Rebound from Environmental Stigmas? Evidence from Dallas” (with L. Dale, J.C. Murdoch, and P. Waddell), *Land Economics*, Volume 75, Number 2, pp. 311-326, May 1999.

“Hierarchical linear Models with Application to Air Pollution in the South Coast Air Basin,” (with K. Beron and J. Murdoch), *American Journal of Agricultural Economics*, volume 81, number 5, pp. 1123-1127, 1999.

“The Benefits of Visibility Improvement: New Evidence from the Los Angeles Metropolitan Area,” (with K. Beron and J. Murdoch), *Journal of Real Estate Finance and Economics*, volume 22:2/3, pp. 319-337, May 2001.

“Capitalization and the Voucher: An Analysis of Precinct Returns from California’s Proposition 174,” (with E. Brunner and J. Sonstelie), *Journal of Urban Economics*, 50, pp. 517-536, 2001.

“School Finance Reform and Housing Values” (with E. Brunner and J. Murdoch), *Public Finance Management*, 2 (4), pp. 535-565, 2002.

“The Economic Value of Preventing Respiratory and Cardiovascular Hospitalizations” (with L.G. Chestnut, J.K. Lazo, and S.K. Van Den Eeden), *Contemporary Economic Policy*, 24 (1), pp. 127-143, 2006.

“Corruption in College Basketball? Evidence of Tanking in Post-Season Conference Tournaments” (with E. Balsdon and L. Fong). *Journal of Sports Economics*, volume 8 (1), pp. 19-38, 2007.

### **Chapters in Books**

“Experiments in Valuing Public goods” (with D. Brookshire et al.), pp. 123-172 in *Advances in Applied Micro-Economics*, edited by V. Kerry Smith, Jai Press, Inc., 1981.

“An Evaluation of the Validity of Survey Methods in Economics” (with R. d'Arge et al.), pp. 171-193 in *Environmental Policy: Air Quality*, edited by P. Graves, G. Tolley, and A. Cohen, Ballinger Publishing Co., Cambridge, 1982.

“Valuation of Public Services for the Aged: Theory, Design, and Results” (with C. Garbacz), pp. 239-248 in *Economic Resources for the Elderly: Prospects for the Future*, edited by C. Garbacz, Westview Press, 1983.

“Economic Issues in the Application of Externalities to Electricity Resource Selection” (w R. Rowe and M. Freeman), in *Technical Review of Externalities Issues*, edited by Victor Niemeyer, Electric Power Research Institute, Palo Alto, CA, December 1994.

“Hedonic Price Functions and Spatial Dependence: Implications for the Demand for Urban Air Quality,” (with K. Beron, J. Murdoch, and Y. Hanson), in *New*

*Advances in Spatial Econometrics*, edited by Luc Anselin, Raymond J.G.M. Florax, and S.J. Rey, Springer-Verlag, 2004.

### **Publications in Refereed Proceedings**

“Trombe Wall Versus Direct Gain: A Microeconomic Analysis for Albuquerque and Madison” (with S. Noll), pp. 192-198 in *Proceedings of the Third Passive Solar Energy Conference*, San Jose, California, January 1979.

“Passive Solar, Auxiliary Heat and Building Conservation Optimization: A Graphical Analysis” (with S. Noll), pp. 128-131 in *Proceedings of the Fourth National Passive Solar Energy Conference*, Kansas City, Missouri, October 1979.

“An Economic Overview of the Issues and Problems of Microzonation” (with W. Schulze et al.), in *Third International Earthquake Microzonation Conference Proceedings, Volume III*, June 1982.

“The Benefits of Air Quality Improvements (with J. Murdoch),” in *Transactions of Evaluation of Scientific Basis for Ozone FlashOxidant Standards* (Journal of Air Pollution Control Association), pp. 86-95, October 1985.

“Hedonic Prices for Visibility in the California South Coast Air Basin” (with J. Murdoch), in *Visibility Protection: Research and Policy Analysis*, edited by P. S. Bhardwaja, Transactions of an Air Pollution Control Association Specialty Conference, 1987.

“Acute and Variable Air Pollutants” (with J. Murdoch and W. Weirick), in *Estimating and Valuing Morbidity in a Policy Context: Proceedings*, Association of Environmental and Resource Economists Workshop, June 8-9, 1989.

“Urban Visibility: Some Experiments on the Contingent Valuation Method” (with J. Irwin et al), in *Visibility and Fine Particles*, a Transactions of the Air and Waste Management Association, edited by C.V. Mathai, Pittsburg, PA, 1990.

“A Methodology for Integrating Air Quality Impacts into Energy Resource Planning” (with F. Sebold), in *Proceedings of Demand Side Planning and the Global Environment*, Washington, DC, April 1991.

“A Methodology for Valuing the Air Quality Impacts of Alternative Energy Resources” (with F. Sebold), in *Proceedings of The 5th Demand Side Management Conference*, Boston, Massachusetts, August 1991.

### **Monographs**

*The Economics of Solar Home Heating* (with W. Schulze et al.), Joint Economic Committee of the United States Congress, Government Printing Office, March 1977.

*Predicting Water-Based Recreation: A Generalized Approach* (with J. Baxter, et al.), Appendix to Lake Powell Research Project Bulletin (D. Brookshire et al., authors), National Science Foundation, Report No. 33, November 1976.

*Heat Loss Factors for Single-Family Homes*, LAMS-8837, Los Alamos Scientific Laboratory, September 1979.

*Experiments in Valuing Non-Market Goods: A Case Study of Alternative Benefit Measures for Air Pollution Control in the South Coast Air Basin of Southern California* (with D. Brookshire et al.), Methods Development for Assessing Tradeoffs in Environmental Management, Vol. II, United States Environmental Protection Agency, October 1978.

### **Funded Research Reports**

*A Preliminary Economic Feasibility Study for the Establishment of an Energy-Water Complex in the Tularosa Basin* (with R. Lansford et al.), New Mexico Water Resources Research Institute, Report No. 068, February 1976.

*The Economics of Geothermal Energy: A Case Study* (with S. Ben-David et al.), Report to the National Science Foundation, 1978.

*Direct Gain*, Report to Los Alamos Scientific Laboratory, September 1979.

*Methods Development for Valuing Hazards Information* (with D. Brookshire et al.), Report to the United States Geological Survey, October 1980.

*Alternatives to Increased Electricity Generation Capacity in the Union Electric Service Area*, Report to Missouri Department of Natural Resources, December 1980.

*The Benefits of Preserving Visibility in the National Parklands of the Southwest* (with W. Schulze et al.), Methods Development for Environmental Control Benefits Assessment, Volume VIII, United States Environmental Protection Agency, 1981.

*Experimental Approaches for Valuing Environmental Commodities* (with D. Brookshire et al.), Interim Report to the U.S. Environmental Protection Agency, Grant No. CR808-893-1, April 1982.

*An Economic Evaluation of Strike-Breaking Bribes in Labor Negotiations* (with R. Hageman), Report to the National Football League Player's Association, March 1982.

*Methods Development for Benefit-Cost Analysis of Natural Hazards Information* (with D. Brookshire et al.), Report to the U.S. Geological Survey, Contract No. 14-08-0001-20458, October 1982.

*Assessment of the External Benefits of the Heber Binary Project* (with F. Sebold et al.), report to San Diego Gas and Electric Company, December 1982.

*Methods Development in Measuring Benefits of Environmental Improvements: Experimental Approaches for Valuing Environmental Commodities* (with W. Schulze et al.), Report to the U.S. Environmental Protection Agency, Grant No. CR808-893-01, July 1983.

*The Benefits of Visibility Improvements* (with J. Trijonis et al.), Report to the California Air Resources Board, August 1984.

*Improving the Accuracy of Hedonic Price Methods: Econometric Analysis of Existing Data Sets* (with P. Graves, et al), Vol. VI of Improving Accuracy and Reducing Costs of Environmental Benefit Assessments, Report to U.S. Environmental Protection Agency, March 1986.

*An Economic Evaluation of Hazard Alerts: A Case Study of the Mammoth Lakes Basin, California* (with W.D. Schulze), report to U.S. Geological Survey, May 1986.

*Field and Laboratory Experiments on the Reliability of the Contingent Valuation Method* (with Schulze, et al), Report to the U.S. Environmental Protection Agency, May 1989.

*A Methodology for Estimating and Valuing the Air Quality Impacts of Alternative Energy Resources* (with F. Sebold and J. Murdoch), Report to California Energy Commission, August 1989.

*Valuing the Environmental Impacts of Alternative Energy Resources--Phase II* (with F. Sebold and J. Murdoch), Report to the California Energy Commission, Sacramento, CA., July 1990.

*Valuing the Environmental Impacts of Alternative Energy Resources--Phase III* (with F. Sebold and J. Murdoch), Report to the California Energy Commission, Sacramento, CA., May 1991.

*Valuing Eastern Visibility: A Field Test of the Contingent Valuation Method* (with G. McClelland et al), Report to the U.S. Environmental Protection Agency

(Cooperative Agreement #CR-815183-01-3), Office of Policy, Planning, and Evaluation, Washington, DC, June 1991.

*The Loma Prieta Earthquake: An Event Study of Risk Perceptions and the Housing Market*, Report to the National Science Foundation, December 1991.

*Valuing the Environmental Impacts of Alternative Energy Resources--Phase IV* (with F. Sebold and J. Murdoch), Report to the California Energy Commission, Sacramento, CA., December 1991.

*Valuing the Environmental Impacts of Alternative Energy Resources--Phase V* (with F. Sebold and J. Murdoch), Report to the California Energy Commission, Sacramento, CA., June 1992.

*The Air Quality Valuation Model*, Report to the California Energy Commission, Sacramento, CA., April 1994.

*Review of "Assessing Environmental Externality Costs for Electricity Generation,"* Report to the Minnesota Department of Public Service, St. Paul, MN, March, 1995.

*"Improving Visibility Benefit Estimates from Hedonic Models,"* Report to the South Coast Air Quality Management District, June 1998.

*"The Economic Value of Respiratory and Cardiovascular Hospitalizations,"* (with L. Chestnut and S. Van Den Eeden), Report to the California Air Resources Board, May 2003.

### **Work in Progress**

*"Space-Time Dependence Relationships in Intra-Metropolitan Air Pollution"* (with J. Murdoch and L. Anselin).

### **Awards, Grants, Honors**

Principal Investigator, Analysis of Alternatives to Increased Electric Generation Capacity in the Union Electric Service Area, Missouri Department of Natural Resources, 1980 (\$8,000).

Principal Investigator, Economic Analysis of Wood Biomass Energy Conversion, University of Missouri Weldon Springs Fund, 1980-81 (\$8,600).

Principal Investigator, Development of Methods to Estimate the Benefits of Visibility Improvement, California Air Resources Board, September 1982 (\$54,783).

Principal Investigator, An Economic Evaluation of Hazard Alerts: A Case Study of the Mammoth Lakes Region, California, United States Geological Survey, 1984 (\$47,333).

IPA of the Year, U.S. Environmental Protection Agency, 1987.

Meritorious Performance and Professional Promise Award, San Diego State University, 1988.

Co-Principal Investigator, The Loma Prieta Earthquake: An Event Study of Changes in Risk Perceptions and the Housing Market, National Science Foundation, 1990 (\$93,413).

Co-Principal Investigator, Evaluation of the Environmental Impacts of Alternative Energy Resources, California Energy Commission, 1989-1992 (\$425,000).

Principal Investigator, An Evaluation of the Establishment of Environmental Cost Values, Minnesota Department of Public Service, 1994-95 (\$28,140).

Principal Investigator, The Provision of Water via Water Markets in the San Diego/Tijuana Region, SCERP, 1994-95 (\$24,000).

Principal Investigator, An Analysis of Potential Rebound from Environmental Stigmas, The Law and Economics Consulting Group, 1996 (\$5,000).

Principal Investigator, Improving Air Quality Benefit Estimates from Hedonic Models, United States Environmental protection Agency/National Science Foundation, 1997-1999 (\$124, 931).

Principal Investigator, Improving Visibility Benefit Estimates from Hedonic Models, South Coast Air Quality Management District, 1997-1998 (\$18,000).

Principal Investigator, Space-Time Dependence Relationships in Intra-Metropolitan Air Pollution, United States Geological Survey, 2000-2002 (\$50,000).

Principal Investigator, The Economic Value of Hospitalizations Associated with Particulate and Ozone Air Pollution, California Air Resources Board, 2000-2001 (\$284,080).

Principal Investigator, "The Sensitivity of Concentration-Response Functions to the Explicit Modeling of Space-Time Dependence" (with J. Murdoch and L. Anselin), grant funded by the National Science Foundation (\$141,000).

Principal Investigator, “Spatial Dependence in a Model of Hospital Admissions” (with J. Murdoch and L. Anselin), grant funded by the Environmental Protection Agency (\$30,000).

Principal Investigator, “Economic Value of Reducing Cardiovascular Disease Associated with Air Pollution,” grant funded by the California Air Resources Board, 2008-2010, (\$392,600).

## **Papers Presented**

“Experimental Methods for Valuing Aesthetics and Health Effects in the South Coast Air Basin: An Overview” (with D. Brookshire et al.), presented at the Air Pollution Control Association Annual Meetings, Cincinnati, Ohio, June 1979.

“Valuing Public Goods: A Comparison of Survey and Hedonic Approaches” (with D. Brookshire et al.), presented at the American Economic Association Meetings, Denver, Colorado, September 1980.

“An Experiment in Valuing Senior Companion Services” (with C. Garbacz), presented at the American Economic Association Meetings, Washington, DC, December 1981.

“An Economic Overview of the Issues and Problems of Microzonation” (with D. Brookshire et al.), presented at the Third International Conference on Microzonation, Seattle, Washington, June 1982.

“The Benefits of Air Quality Improvements” (with J. Murdoch, et al.), to be presented at International Specialty Conference on Critical Evaluation of the Current Scientific Data Base for Ozone Regulation, Houston, Texas, November 27-30, 1984.

“Hedonic Prices for Visibility in California's South Coast Air Basin” (with J. Murdoch), presented at Jackson, Wyoming, September 1986.

“Variable Air Pollution and Acute Health Effects” (with J. Murdoch and B. Weirick), presented at Western Economic Association Meetings, Vancouver, British Columbia, 1987.

“A Methodology for Integrating Air Quality Impacts into Energy Resource Planning” (with F. Sebold), presented at the (1) Advanced Workshop in Regulation and Public Utility Economics, San Diego, CA. 1990; (2) Demand Side Management and the Global Environment, Washington DC, 1991.

“Valuing the Externalities Associated with Electric Generation” (with F. Sebold, J. Murdoch, T. Tanton, T. Mayer), presented at the Western Economic Association, San Francisco, July 1992.

“A Methodology for Valuing Externalities” (with F. Sebold and J. Murdoch), presented at the Western Economic Association, San Francisco, July 1992.

“A Methodology for Determining the Value of the Air Quality Impacts of Electricity Generation,” Public Utility Research and Training Institute Seminar, Laramie, Wyoming, June 1993. Also presented at New Mexico State University Conference, Santa Fe, New Mexico, April 1993.

“Water Provision and Markets in the San Diego/Tijuana Region,” presented at the SCERP Technical Conference, San Diego, CA, March 1995.

“Hedonic Price Functions and Spatial Dependence: Implications for the Demand for Urban Air Quality,” presented at the Spatial Econometric Society Annual Meeting, November 1998.

“Hedonic Price Functions and Spatial Dependence: Implications for the Demand for Urban Air Quality,” (with K. Beron, J. Murdoch, and Y. Hanson), presented at the Spatial Econometric Society Annual Meeting, November 1998.

“Hierarchical linear Models with Application to Air Pollution in the South Coast Air Basin,” (with K. Beron and J. Murdoch), presented at the Annual AAEA Meeting in Nashville, August 1999.

"Capitalization and the Voucher," (with E. Brunner and J. Sonstelie), National Tax Association Meetings, October 1999.

"Capitalization and the Voucher," (with E. Brunner and J. Sonstelie), Southern Economic Association Meetings, November 1999.

"The Benefits of Visibility Improvement: New Evidence from the Los Angeles Metropolitan Area," (with K. Beron and J. Murdoch), CESIR Seminar Series, Stanford University, April 2000.

“Who Benefits from Environmental Policy? An Assessment Based on Housing Values in Southern California, 1977-2000,” Association of Public Policy and Management Conference, November 2002.

“Tools for the Exploration of Space-Time Patterns in Concentration-Response Models,” ASSA Conference, January 2003.

“The Economic Value of Respiratory and Cardiovascular Hospitalizations,”  
California Air Resources Board Chairman’s Air Pollution Seminar Series, May  
2003.

### **Other Professional Growth**

Project Consultant, U.S. Environmental Protection Agency, 1975-88.

Project Consultant, California Air Resources Board, 1983-84.

Project Consultant, Regional Economic Research, 1982-2002.

Project Consultant, Santa Fe Research Corporation, 1982-Present.

Project Consultant, Environmental Law Institute, 1987-88.

Project Consultant, U.S. Geological Survey, 1982-87.

Project Consultant, National Science Foundation, 1990-91.

Prepared and offered testimony for a case involving the Heber Geothermal Plant,  
Public Utilities Commission, 1983.

Prepared and offered testimony for case involving production and sale of  
counterfeit goods for Federal Defenders, Federal Court, September 1990.

Prepared and offered testimony on the issue of including environmental values in  
energy resource planning, California Energy Commission, 1991-94.

Prepared and offered testimony on the issue of including environmental values in  
energy resource planning, Minnesota Public Utilities Commission, 1995.

Prepared and offered expert testimony in cases concerning value of injury and/or  
premature death, 1990-95.

Prepared and offered expert testimony in cases concerning survey and hedonic  
analysis of property value impacts associated with proximity to known hazards,  
both natural and man-made, 1993-95.

Associate Editor, *Journal of Environmental Economics and Management*, 1990-  
91.

Reviewer for *Journal of Environmental Economics and Management*, *Land  
Economics*, *Water Resources Research*, *Contemporary Policy Issues*, *American  
Economic Review*, United States Geological Survey, United States Environmental

Protection Agency (Socioeconomics Review Panel and the Office of Policy, Planning, and Evaluation), United States Environmental Protection Agency/National Science Foundation, *Journal of Developing Areas*.