

Michelle Haefele

Agricultural & Resource Economics
Colorado State University
Fort Collins, CO 80523-1172
970-491-6959
michelle.haefele@colostate.edu

Education

PhD: Department of Agricultural and Resource Economics, Colorado State University, 1999

Fields: Natural Resource and Environmental Economics, Econometrics

Dissertation: Testing the Conjoint Analysis Technique for the Measurement of Passive Use Values of Forest Health

Course work in: Econometrics, Public Lands Management, Microeconomic Theory, Macroeconomic Theory, Natural Resources Economics, Environmental Economics, Agricultural and Natural Resource Policy, Agricultural Price Analysis, Production Economics

Master of Science: School of Forestry and Environmental Studies (now the Nicholas School of the Environment and Earth Sciences), Duke University, 1991

Major: Natural Resource and Environmental Economics and Policy

Master's Thesis: The Value of Forest Quality in the Southern Appalachian Mountains

Course work in: Land Use Management, Environmental Economics, Benefit/Cost Analysis, Policy Sciences, Econometrics, Water Resources Management

Bachelor of Science: Department of Forest and Wood Sciences, Colorado State University, 1987

Major: Natural Resources Management

Minor: Recreation Resources

Experience

Project Manager (Post-Doctoral Fellow)

August 2012-present

Department of Agricultural & Resource Economics, Colorado State University, Fort Collins, CO

I perform management and development aspects of various research projects. Duties include literature search and synthesis of literature on economic valuation; participation in decision about methodology; preparing materials for peer review panel on initial study design and final study design; logistics (cost estimation, selection of survey research firms, organizing and conduction nationwide focus groups); analysis and reporting of survey research results in reports and articles submitted for publication in peer-reviewed journals.

Current projects include estimate of the total economic value of the National Park Service, the cost of wildfire suppression and fuel reduction treatments, economic impacts of hunting, and the non-market costs and benefits of oil and gas development.

Independent Contractor

January 2012-present

Projects include comments on federal public land management proposals, federal rules and state level energy development.

Instructor

January – May 2012
August – December 2008

Front Range Community College, Larimer Campus, Fort Collins, CO

Taught undergraduate courses in Economics, including "Issues in Environmental Economics" and "Principles of Microeconomics." Duties included preparing and presenting lectures, developing homework and term paper assignments, exams and other class work and grading students' work.

Resource Economist

June 2003 – December 2011

The Wilderness Society, Research Department, Denver, CO

I participated in the analysis of issues related to public land management throughout the United States. Projects include studies of the economies of gateway communities; the economic impacts of public lands on rural communities; analysis of the changing economy of the West; research on the impacts of oil and gas development on western communities; economic analyses of potential oil and gas development in the Rocky Mountain region, including projects on the Rocky Mountain Front in Montana, and Northwest Colorado; an analysis of the oil and gas drilling permits and leases on federal public lands in the western US. In addition I also participate in preparing comments for the land management planning process, and economic analyses associated with specific land management proposals.

January 2000 – May 2003

Post Doctoral Research Fellow

Department of Economics, Colorado State University, Fort Collins, CO

This was a joint position with the USDA Forest Service Rocky Mountain Research Station, and involved both teaching and research duties. I taught undergraduate courses in Principles of Microeconomics and Issues in Environmental Economics. Research duties included data analysis and reporting for a survey of the public's values objectives beliefs and attitudes for forests and grasslands which provides public input for the 2000 Forest Service Strategic Plan. I also participated in developing new applications of the methods used in this survey, and in other projects dealing with public input for public land management.

Graduate Research Assistant

August 1995 – June 1999

Department of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO

Duties for this position included designing and implementing a research project which uses non-market valuation techniques to estimate public values for forest health in the United States. Specific activities included designing and testing a survey instrument, implementation of the survey, econometric and statistical analysis of survey results and writing a dissertation and other publications.

Instructor

August 1998 – December 1998

August 1999 – December 1999

Department of Economics, Colorado State University, Fort Collins, CO

I developed and taught undergraduate courses in Issues in Environmental Economics and Principles of Microeconomics. Duties included selection of textbooks, development of syllabi, preparation and presentation of course lectures, development of homework, quizzes and examinations, and grading, as well as supervising a teaching assistant. (Course evaluation summaries are available upon request.)

Research Associate

Summers 1997, 1998

Department of Recreation Resources, Colorado State University, Fort Collins, CO

This position involved work on analyzing data collected in a contingent valuation study of participants on wildlife viewing tours in Denali National Park, Alaska. Duties included conducting statistical and econometric analyses on an existing data set, determining the appropriate valuation method, and reporting the results of these analyses. I also worked on a project to determine the willingness of Colorado anglers to incur increased license fees. Duties included questionnaire design and pre-testing, statistical and econometric analysis of data, and preparation of final reports and other publications.

Research Associate

Summer 1995

Department of Recreation Resources, Colorado State University, Fort Collins, CO

I worked on the design, pre-testing and implementation of an experiment examining differences between willingness to pay and willingness to accept payment using market goods. The results were used to refine techniques to examine monetary valuation procedures for non-market goods. Duties included designing the questionnaire, testing procedures and data collection via interviews.

Environmental Protection Assistant

July 1994 – July 1995

United States Department of the Army, Environmental and Natural Resources Management Division, Fort Ord, CA

Worked on bringing Fort Ord into compliance with Executive Order 12856, which requires all Federal facilities to comply with the Emergency Planning and Community Right to Know Act and the Pollution Prevention Act. Also worked with the Hazardous Waste Management Branch on every day compliance with the Resources Conservation and Recovery Act. Duties included listing and reporting hazardous materials on the base and hazardous waste generated.

Research Associate

August 1993 – July 1994

Department of Recreation Resources, Colorado State University, Fort Collins, CO

This position was part of a cooperative agreement with the USDA Forest Service Rocky Mountain Forest and Range Experiment Station, working on the 1998 Resources Planning Act Water Assessment. Duties included locating available data on water use, supply, population, and other demographics and building and analyzing data sets for the assessment of the water situation in the US. I wrote a comprehensive final report detailing the results of this data collection and analysis.

Operations Research Analyst

August 1992 – August 1993

USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO

Provided research assistance and support for projects to determine the values associated with wild lands and natural areas. Duties included library research, data collection, development and analysis of data sets and development of research projects.

Research Coordinator

July 1991 – June 1992

Department of Agricultural and Applied Economics, University of Georgia, Athens, GA

Worked in cooperation with the USDA Forest Service, Southeastern Forest Experiment Station on the National Survey on Recreation and the Environment (NSRE). Duties included developing questionnaire items, preparing the request for approval for the Office of Management and Budget, and coordinating input from the Federal agencies and other organizations which made up the working group for this cooperative effort.

Graduate Research Assistant

September 1989 – May 1991

School of Forestry and Environmental Studies, Duke University, Durham, NC

Worked as a graduate student research assistant on a project to develop methodology for valuing forest quality in the high-elevation spruce-fir forests of the southern Appalachian Mountains. Duties included literature review, survey development, implementation of a mail survey, econometric and statistical analyses of survey results, and presentation and reporting of the results as a Master's Thesis and in conference lectures.

Forester

Summer 1990

USDA Forest Service, Southeastern Forest Experiment Station, Research Triangle Park, NC

Prepared an extensive review of the literature on non-market valuation of natural resources and environmental amenities, wrote an annotated bibliography of these works.

Research Associate

March 1987 – May 1987
August 1987 – August 1989

Department of Forest and Wood Sciences, Colorado State University, Fort Collins, Colorado

Worked on a cooperative research project with the USDA Forest Service, Rocky Mountain Forest and Range Experiment Station to determine the value of recreation on Forest Service lands. Duties included building data sets for statistical analysis from Census data and survey data.

Selected Publications & Presentations

- Haefele, M., N. Culver and A. Bond. *In Review*. National Monuments in a Regional Economic Context: A Case Study of the Carrizo Plain National Monument. In: Eaton, Marietta; Landres, Peter, compilers. 2010. Decade of Discovery in the National Landscape Conservation System, May 24-28, 2010, Albuquerque, New Mexico. Proceedings RMRS-P-000. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Haefele, M. and P. Morton. 2009. The influence of the pace and scale of energy development on communities: Lessons from the natural gas drilling boom in the Rocky Mountains. *Western Economics Forum* 8(2): 1-13.
- Haefele, M. Culver, N. and Bond, A. 2008. The Carrizo Plain National Monument: A Stunning Natural Area Sustaining Vibrant Communities. San Francisco, CA: The Wilderness Society. 52 pp.
- Haefele, M. Morton, P. Culver, N. 2007. Natural Dividends: Wildland Protection and the Changing Economy of the Rocky Mountain West. Washington, D.C. The Wilderness Society. 32 pp.
- Haefele, M. Morton, P. Thomson, J. Hartley, D. 2006. Drilling in the Rockies: the influence of pace and scale on community impacts. Presented at the International Symposium on Society and Resource Management. Vancouver, BC, June 2006.
- Morton, P., C. Weller, J. Thomson, M. Haefele, and N. Culver. 2004. Drilling in the Rocky Mountains: How Much and at What Cost? *Proceedings of the 69th North American Wildlife and Natural Resources Conference*, Spokane, WA. March 16-20, 2004.
- Haefele, Michelle; Shields, Deborah J.; Lybecker, Donna L. 2005. Survey responses from Region 3: Are we achieving the public's objectives for forests and rangelands? Gen. Tech. Rep. RMRS-GTR-156. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 27 p.
- Shields, Deborah J.; Haefele, Michelle; Lybecker, Donna L. 2005. Survey responses from Region 8: Are we achieving the public's objectives for forests and rangelands? Gen. Tech. Rep. RMRS-GTR-158. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 31 p.
- Haefele, Michelle; Shields, Deborah J.; Lybecker, Donna L. 2005. Survey responses from Region 9: Are we achieving the public's objectives for forests and rangelands? Gen. Tech. Rep. RMRS-GTR-159. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 28 p.
- Lybecker, Donna L.; Shields, Deborah J.; Haefele, Michelle. 2005. Survey responses from the intermountain West: Are we achieving the public's objectives for forests and rangelands? Gen. Tech. Rep. RMRS-GTR-160. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 35 p.

-
- Kramer, R. A., Holmes, T. P., and Haefele, M. A. 2003 "Using contingent valuation to estimate the value of forest ecosystem protection," in: *Forests in A Market Economy*, Sills, E. and Abt, K. (eds.). Forestry Sciences Series by Kluwer Academic Publishers, Dordrecht, Netherlands,
- Haefele, M. A. and Shields, D. J. 2003. Survey responses from the Northeastern Area of State and Private Forestry: Are we achieving the public's objectives for forests and rangelands? Unpublished paper on file at USDA Forest Service Rocky Mountain Research Station, Fort Collins, CO. 50 p.
- Shields, D. J., Martin, I. M. Martin, W. E., and Haefele, M. A. 2002. Survey results of the American public's values, objectives, beliefs, and attitudes regarding forests and grasslands: A technical document supporting the 2000 USDA Forest Service RPA Assessment. Gen. Tech. Rep. RMRS-GTR-95. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 111p.
- Haefele, M. A. and Loomis, J. B. 2001 Improving statistical efficiency and testing robustness of conjoint marginal valuations." *Am. J. of Agric. Econ.* 83(5):1321-1327.
- McCollum, D. W., Rosenberger, R. S. and Haefele, M. A. 2001 A systematic evaluation of cross-scenario effects in multiple scenario contingent valuation studies. Paper presented at the Association of Environmental and Resource Economics session of the American Agricultural Economics Association annual meeting, Chicago IL, Aug. 5-8 2001.
- Haefele, M. A. and Loomis, J. B. Using the conjoint analysis technique for the estimation of passive use values of forest health." *J. Forest Econ.* 7(2001):9-28.
- McCollum, D. W., Haefele, M. A., and Rosenberger, R. S. 1999. A survey of 1997 Colorado anglers and their willingness to pay increased license fees (Project Report No. 39). Project Report for the Colorado Division of Wildlife. Fort Collins, CO: Colorado State University, Human Dimensions in Natural Resources Unit, and USDA Forest Service, Rocky Mountain Research Station. 105 pp.
- McCollum, D. W., Haefele, M. A., and Miller, S. M. 1998. Attributes and value of a recreation experience: a preliminary analysis of wildlife viewing in Denali National Park. In *Proceedings: W-133 Benefits and Costs of Resources Policies Affecting Public and Private Land*. Eleventh Interim Report, compiled by Paul Jakus, Department of Agricultural Economics, University of Tennessee, Knoxville TN.
- Haefele, M. A., Kramer, R. A., and Holmes, T. P. 1991. Estimating the Total Value of Forest Quality in High Elevation Forests. In *Proceedings: National Conference on the Economic Value of Wilderness*, May 9-11, 1991, Jackson Hole, WY.
- Holmes, T. P., Kramer, R. A., and Haefele, M. A.. 1991. The Economic Valuation of Forest Quality. In *Proceedings: Southern Forest Economics Workshop*, February 20-22, 1991, Washington, DC.
- Kramer, R. A. and Haefele, M. A. 1990. Economic Valuation of Forest Damage from Air Pollution: Method Development. Final report for a cooperative agreement between Duke University and the USDA Forest Service, Southeastern Forest Experiment Station.

Professional References

Dr. John Loomis (major professor)
Department of Agricultural and Resource Economics
Colorado State University
Fort Collins, CO 80523-1172
(970) 491-2485

Dr. Pete Morton
Economist
618 Alpine Ave
Boulder, CO 80304
(303) 993-3727

Dr. Daniel McCollum
USDA Forest Service, Rocky Mountain Research Station
240 West Prospect Road
Fort Collins, CO 80526
(970) 498-2565

Dr. Deborah Shields
USDA Forest Service, Rocky Mountain Research Station
(retired)
240 West Prospect Road
Fort Collins, CO 80526
(970) 295-5975

Dr. Thomas Holmes
USDA Forest Service Southern Research Station
Forestry Sciences Lab
3041 Cornwallis Rd
Research Triangle Park, NC 27709
(919) 549-4031

Dr. Randall Kramer
Nicholas School of the Environment
Duke University
Durham, NC 27708
(919) 613-8072

Professional Affiliations

Association of Environmental and Resources Economists
Western Agricultural Economics Association
Omicron Delta Epsilon – Economics Honor Society

Service

Volunteer

December 2011

City of Fort Collins, Gardens on Spring Creek, Fort Collins, CO. Assist as needed with visitor services, and other duties.

Volunteer

May 2002 – October 2004

Poudre Wilderness Volunteers, Fort Collins, CO. Patrol trails on the Arapaho-Roosevelt National Forest to provide education and assistance to visitors and perform minor trail and campsite maintenance.

Member, Board of Directors

October 2007-September 2008

Gender Equity in Math and Science, Loveland, CO. Developed programs designed to achieve the organization's mission to expand the vision of the community's elementary school age girls by providing exploration opportunities in math and science.

Volunteer

Academic Years 1984 – 1986

The Northern Colorado Nature Center (now the Environmental Learning Center), Fort Collins, CO. Taught basic ecology and nature programs for local elementary school children.

Other Positions**Consultant**

December 2011-present

Provide economic expertise for projects on public lands and non-market values.

Invited Instructor

March 2011

I was an invited instructor for a portion of a week-long career-development course for professional public land managers working for the U.S.D.A. Forest Service. The course, titled *Natural Resource Policy, Values and Economics*, was developed by Drs. John Loomis of Colorado State University and John Bergstrom of the University of Georgia. I presented a half-day lecture on public lands and local economic impacts as well as non-market valuation of public lands.

Lab Assistant

October 1985 – May 1987

September 1987 – December 1987

College of Forestry and Natural Resources Microcomputer Lab, Colorado State University, Fort Collins, CO.

Assisted students and faculty, performed administrative duties, and maintained software library and network.

Bicycle Tour Leader

Summer 1987

Backroads Bicycle Tours, Berkeley, CA

Led active vacation tours in California. Duties included managing logistics, bicycle repair and maintenance, meal preparation and guest relations.

Teaching Assistant

January 1985 – May 1986

Department of Forest and Wood Sciences, Colorado State University, Fort Collins, CO.

Assisted students in the lab sections of an introductory computer course. Other duties included occasionally developing homework and tests, and grading student work