

Matthew J. Kotchen

Research Statement

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My primary research interests lie at the intersection of environmental and public economics. I pursue both theoretical and empirical questions, often combining the two. Most of my research thus far can be partitioned into four main categories.

Private Provision of Public Goods

Perhaps my most significant contributions have been advances in the theory of voluntary provision of public goods. My research in this area conceptualizes environmentally related goods and services as impure public goods, providing both private and public benefits (or costs). The need to understand these increasingly important choice settings involving impure public goods poses new questions for public economic theory—ones that have led me to write several papers that develop new models and new techniques for analyzing Nash equilibria. My research in this area takes a game-theoretic perspective, and the results have implications for consumer theory in general and environmental management in particular.

Green Markets: Empirical Investigations of Consumer and Producer Choice

A related line of my research is empirical and focuses on producer and consumer choice as it relates to the environment. This work seeks to test new theory on private provision of public goods. Several of my projects take advantage of field settings to empirically identify underlying motivations for environmentally related choices. My work on conservation behavior is based on original datasets involving voluntary participation of households in green electricity programs. I have ongoing research that investigates whether corporate social responsibility—which encompasses corporate environmental management—is a strategy to offset corporate social irresponsibility.

Nonmarket Valuation and Program Evaluation

Several of my papers and ongoing projects relate to nonmarket valuation and program evaluation. My earliest research includes methodological papers on survey design for contingent valuation. Some of this work builds explicit linkages to psychology in order to examine the relationship between attitudes, nonuse values, and stated preferences. My research on program evaluation focuses on topics ranging from relicensing agreements for hydroelectric dams to oil resources in Alaska's Arctic National Wildlife Refuge. Most recently, a project on the effect of Daylight Saving Time on energy conservation has received widespread media attention and has real potential to influence federal policy.

Interdisciplinary Environmental Science and Management

Some of my current research activity reflects an interdisciplinary perspective on environmental science and management. One paper, coauthored with a political scientist, argues for greater attention to the notion of “coupled systems” in order to understand and meet environmental challenges. Other papers (forthcoming or in progress) involve collaborations with natural scientists in which I apply econometric techniques to identify causation in natural systems. Specific projects relate to the effects of ecological restoration on stream and groundwater dynamics, environmental influences on coral bleaching, and the use of marine protected areas in spatially explicit fisheries stock assessments.