
Abstract

Previous research on water trading has focused on surface water trading and theoretical approaches to analyzing groundwater trading. Empirical analysis of groundwater trading is a new area of research due to limited data on recorded usage, infrequent trades, and the lack of binding constraints on groundwater use by landowners. Groundwater trading can help move water from low-value to high-value areas of use for the benefit of the participants and the public. The paper uses data on groundwater trades to estimate the factors that affect utilization of groundwater trading. Specifically, the paper considers both formal and informal trading of groundwater used for crop irrigation and attempts to identify those characteristics that predict the probability of trade participation and whether an individual is a buyer or seller of groundwater rights. Results indicate a strong desire to participate in trades, but high transactions costs have limited the number of trades that have occurred. Utilizing empirical models improves the accuracy of predicting trade participation and direction, and therefore the accuracy of models of how introducing water transfers affects water supplies and stream flows. Such information is critical for policymakers who are considering introducing or expanding the use of groundwater trading.